Republic Services proudly presents our 2022 Sustainability Report, which highlights our sustainability initiatives and tracks progress toward our 2030 goals.

Our industry-leading commitments to advance circularity, reduce fleet emissions and decarbonize operations are helping deliver on our vision to partner with customers to create a more sustainable world.

As part of our ongoing commitment to transparency, this report includes our most expansive disclosures to date. Our Sustainability Report is part of a suite of 2022 sustainability reporting that includes GRI, SASB, TCFD and other reports.

The progress we’ve reported toward our 2030 goals represents data as of December 31, 2022. Several environmental and social metrics have undergone limited assurance by LRQA, an accredited third-party verifier.

FORWARD-LOOKING STATEMENTS: This report contains certain forward-looking information about us that is intended to be covered by the safe harbor for “forward-looking statements” provided by the Private Securities Litigation Reform Act of 1995. Forward-looking statements are statements that are not historical facts. Words such as “guidance,” “expect,” “will,” “may,” “anticipate,” “plan,” “estimate,” “project,” “intend,” “should,” “can,” “likely,” “could,” “outlook” and similar expressions are intended to identify forward-looking statements. These statements include information about our sustainability targets, goals and programs in addition to our plans, strategies, expectations of future financial performance and prospects. Forward-looking statements are not guarantees of performance. You should not place undue reliance on any forward-looking statement. These statements are based upon the current beliefs and expectations of our management and are subject to significant risk and uncertainties that could cause actual results to differ materially from those expressed in, or implied or projected by, the forward-looking information and statements. Although we believe that the expectations reflected in the forward-looking statements are reasonable, we cannot assure you that the expectations will prove to be correct. The inclusion of information in this report should not be construed as a characterization regarding the materiality or financial impact of that information. More information on factors that could cause actual results or events to differ materially from those anticipated is included from time to time in our reports filed with the Securities and Exchange Commission, including our Annual Report on Form 10-K for the year ended December 31, 2022, particularly under Part I, Item 1A – Risk Factors, and in our Quarterly Reports on Form 10-Q. Additionally, new risk factors emerge from time to time, and it is not possible for us to predict all such risk factors, or to assess the impact such risk factors might have on our business or sustainability programs and goals. We undertake no obligation to update publicly any forward-looking statements whether as a result of new information, future events or otherwise, except as required by law.
# Table of Contents

<table>
<thead>
<tr>
<th>Section</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>About Us</td>
<td>4</td>
</tr>
<tr>
<td>Our Approach</td>
<td>12</td>
</tr>
<tr>
<td>Safety</td>
<td>19</td>
</tr>
<tr>
<td>Talent</td>
<td>27</td>
</tr>
<tr>
<td>Climate Leadership</td>
<td>35</td>
</tr>
<tr>
<td>Communities</td>
<td>49</td>
</tr>
<tr>
<td>Our Processes</td>
<td>57</td>
</tr>
</tbody>
</table>
OUR VALUES

Safe
We protect the livelihoods of our colleagues and communities.

Committed to Serve
We go above and beyond to exceed our customers’ expectations.

Environmentally Responsible
We take action to improve our environment.

Driven
We deliver results in the right way.

Human-Centered
We respect the dignity and unique potential of every person.

About Us

We’re partnering with customers to create a more sustainable world.
Creating a More Sustainable World

Our company promise is Sustainability in Action. To us, that means taking action to improve the health of our business and the environment.

We've aligned our approach under our Elements of Sustainability – Safety, Talent, Climate Leadership and Communities. These elements, and our ambitious 2030 Sustainability Goals, are designed to deliver both economic and environmental sustainability while meeting the needs of our customers.

We continue to make steady progress toward our long-term sustainability goals thanks to the dedication of our approximately 40,000 team members. I'm continually inspired by our frontline workers, who show what it means to be committed to serve. By taking ownership of their roles, our employees helped drive the sustainability results highlighted in this report.

Our Progress
In 2022, we made notable strides toward our Safety and Talent goals. We reported a 19% improvement in our OSHA Total Recordable Incident Rate, and our employee engagement score increased to 85 – both well above national benchmarks.

Our Climate Leadership goals anchor our energy transition road map. We're accelerating our progress, with strategic developments underway to advance circularity, reduce fleet emissions and decarbonize operations. At the same time, we're helping our customers achieve their own sustainability goals.

This year, we're introducing an updated and more ambitious Communities goal: to create sustainable neighborhoods through strong community partnerships for 45 million people by 2030. We believe this goal better reflects the positive impact we make every day in the communities we serve.

Our Commitment
Today, Republic Services offers the most complete set of products and services in our industry. Our customers tell us they want a single partner to handle all of their needs, and a partner who is making a positive difference in the environment. Our commitment to customers is to be that partner.

We're proud of our diverse workforce, whose broad range of ideas and perspectives help us best serve our customers. We're committed to maintaining our highly inclusive culture and expanding opportunities for an even wider pool of candidates. To that end, we recently removed the college degree requirement from the majority of our roles.

Above all, we are driven to deliver results in the right way. Our corporate governance framework sets high ethical standards, ensures compliance and provides oversight of our sustainability initiatives. We're honored to have been recognized once again by Ethisphere as one of the World’s Most Ethical Companies.

A colleague once told me there are two good times to plant a tree: 20 years ago, and right now. We are planting our tree. Together, we have the opportunity to change the world.

Jon Vander Ark
President and Chief Executive Officer
Serving Our Customers

From small businesses to major corporations to municipalities, customers want a partner with the expertise to manage their multiple recycling and waste streams. They want a team committed to exceeding their expectations and helping them achieve their sustainability goals.

Republic Services offers customers the most complete set of products and services in the environmental services industry.

Our commitments to advance circularity, reduce fleet emissions and decarbonize operations are helping deliver on our vision to partner with customers to create a more sustainable world.
Platform for Growth

As a leader in environmental services, sustainability is deeply integrated into our business model. One of our strategic priorities and differentiating capabilities is to leverage sustainability as a platform for growth.

ADVANCING CIRCULARITY
To enable greater circularity of plastics, we’re developing a network of Polymer Centers, the nation’s first vertically integrated plastics recycling facilities. Plastics circularity has traditionally been limited, with most plastic being downcycled into products with few options for further recycling. We believe it will take multiple solutions to increase recycling rates, accelerate circularity and ensure materials remain in manufacturing processes longer. The Polymer Centers are our solution for the rigid plastics most commonly found in consumer packaging.

REDUCING FLEET EMISSIONS
Republic Services’ fleet of 17,000 vehicles is a meaningful part of our company’s carbon footprint, which is why we’ve made the industry’s largest commitment to fleet electrification. In early 2023, we announced the first fully integrated, zero-emissions electric collection truck, designed and built by McNeilus and Oshkosh Corp., with insights from our team. This “truck of the future” was designed with best-in-class safety technology and driver ergonomics. We continue to utilize a multi-supplier strategy, including partners Peterbilt and Mack, to electrify our fleet.

DECARBONIZING OPERATIONS
We are utilizing a natural byproduct of landfills to generate renewable energy for our communities. With more than 200 active landfills, we saw an opportunity to scale up renewable energy production to support our customers’ decarbonization goals. We’ve formed an innovative joint venture with bp to develop the nation’s largest portfolio build-out to date of renewable natural gas (RNG) projects. bp will convert naturally occurring landfill gas into pipeline-quality RNG, a low-carbon transportation fuel that displaces the use of fossil fuels.
Elements of Sustainability

At Republic Services, we’re committed to partnering with customers to create a more sustainable world. Our Elements of Sustainability guide our efforts to deliver on this vision. We’ve embedded these four elements into all areas of our business, and they anchor our 2030 Sustainability Goals.

Safety
Safety drives every decision we make. Our dedication to safety extends to our customers and into our communities. With many of our employees and one of the country’s largest fleets on the road every day, it is essential that safety is part of everything we do.

Talent
Our employees are committed to serve – our customers, our communities and each other. That’s what inspires us to be a place where the best people, from all backgrounds, come to work. We’re dedicated to maintaining our inclusive culture and leveraging human-centered practices that make us an employer of choice.

Climate Leadership
We are focused on delivering services and solutions for a more sustainable world. By advancing circularity, reducing fleet emissions and decarbonizing operations, we’re committed to environmentally responsible operations that help our customers meet their goals.

Communities
Engaging with and investing in the communities where our employees and customers live and work is a vital part of creating sustainable neighborhoods. Through outreach, involvement and investments, we’re supporting people and building strong community partnerships.
2030 Sustainability Goals

**SAFETY**

- **Safety Amplified**
  - 0 Employee fatalities

- **Incident Reduction**
  - <2.0 Reduce our OSHA Total Recordable Incident Rate (TRIR) to 2.0 or less by 2030

**TALENT**

- **Engaged Workforce**
  - 88 Achieve and maintain employee engagement scores at or above 88 by 2030

**COMMUNITIES**

- **Charitable Giving**
  - 45M Create sustainable neighborhoods through strong community partnerships for 45 million people by 2030

**CLIMATE LEADERSHIP**

- **Science-Based Target**
  - 35% Reduce absolute Scope 1 and 2 greenhouse gas emissions 35% by 2030³
  - Approved by SBT¹

- **Circular Economy**
  - 40% Increase recovery and circularity of key materials by 40% on a combined basis by 2030²

- **Renewable Energy**
  - 50% Increase beneficial reuse of biogas by 50% by 2030²

¹SBTi is a collaboration between CDP, the United Nations Global Compact (UNGC), World Resources Institute (WRI) and the World Wide Fund for Nature (WWF)
²2017 baseline year
³2017 baseline year
2022 Sustainability Highlights

**SAFETY**

1.4M hours of safety training

4 Driver of the Year winners

28% better TRIR than industry average

70 customer spills mitigated

**TALENT**

85 Employee engagement score

47% racial/ethnic diversity

4 Business Resource Groups

4,400 veterans employed

**CLIMATE LEADERSHIP**

$319M Sustainability CapEx¹

$352M Sustainability investments²

100% of CNG vehicles fueled by renewable natural gas

9% reduction in Scope 1 and 2 GHG emissions since 2017

**COMMUNITIES**

17 Republic Services Charitable Foundation grants

808 Community Grants

3.5M people positively impacted in 2022

10 National Neighborhood Promise projects funded

¹Sustainability capital expenditure (CapEx) includes recycling and organics assets, landfill gas collection systems, leachate collection and treatment systems, and sustainable vehicles and infrastructure, based on the EU Taxonomy.

²Sustainability investments include equity investments and joint ventures in solar, renewable natural gas and plastics circularity projects.
Awards and Recognition

As of June 1, 2023

Member of
Dow Jones Sustainability Indices
Powered by the S&P Global CSA

Sustainability Yearbook
Member 2023
S&P Global
Our Approach

We play a vital role in making the planet a better place, now and for future generations.
Our Approach to Sustainability

Republic Services’ approach to sustainability centers around the topics most important to our key stakeholders. Ongoing engagement with internal and external stakeholders, including customers, municipalities, investors and company leaders, helps inform our sustainability strategy, goals and communications.

While we maintain an open and ongoing dialogue, we also conduct formal outreach through a materiality assessment process. We completed our most recent materiality assessment in 2022. It included stakeholder interviews, an analysis of previous surveys, sustainability standards and frameworks, media, peer disclosures and more.

From this analysis, a materiality matrix was created to plot sustainability topics based on two axes, “Importance to Business” and “Importance to Stakeholders.”

The results show that, overall, our Elements of Sustainability – Safety, Talent, Climate Leadership and Communities – and our associated 2030 goals, are aligned with priority topics identified in the assessment. This gives us confidence that each of our 2030 Sustainability Goals has the potential to provide environmental and economic sustainability while helping create a more sustainable world.
U.N. Sustainable Development Goals

The United Nations’ Sustainable Development Goals (SDGs) serve as a framework to achieve a better and more sustainable future. They tackle global challenges ranging from climate change and biodiversity loss to poverty, conflict and inequality.

When Republic Services introduced our 2030 Sustainability Goals in 2019, we linked them to four SDGs that we believed were most relevant to our business and where we felt our scale and efforts could have the most impact.

Today, sustainability is embedded in everything we do. It is our responsibility as a leader in the environmental services industry to make the world a better place, now and for future generations. Through our initiatives, innovations and investments, we’re making positive contributions that align with 10 SDGs.
Opens world’s largest materials recovery facility at Newby Island Resource Recovery Park in Northern California

Establishes Mission of Supporting an Inclusive Culture (MOSAIC)

Establishes Charitable Foundation and launches companywide charitable giving program, National Neighborhood Promise

With original goals achieved, Republic Services unveils 2030 Sustainability Goals aligned with U.N. Sustainable Development Goals

Emission reduction target approved by the Science Based Targets initiative, an industry first

Launches first Business Resource Group, Women of Republic

Opens company’s largest landfill solar project to date in Massachusetts

Announces creation of Polymer Center, nation’s first integrated plastics recycling facility

$2.2B acquisition of US Ecology results in industry’s broadest set of product and service offerings

Launches joint venture with bp to develop portfolio of landfill RNG projects

Launches first Business Resource Group, Women of Republic

Opens company’s largest landfill solar project to date in Massachusetts

Begin testing first EV, a Mack LR electric collection truck

Rolls out first fully integrated electric collection truck with Mc Neilus/Oshkosh; scales commitment to EV fleet

Republic Services merges with Allied Waste, forming one of nation’s largest environmental services providers

CNG trucks reduce fleet emissions at scale

Landfill gas generates electricity and RNG

Republic Services (RSG) stock begins trading on NYSE

Company strengthens its foundation of environmentally responsible operations

Republic Services (RSG) stock begins trading on NYSE

Company strengthens its foundation of environmentally responsible operations

1990-98

1999-2007

2008

‘12

‘13

‘15

‘16

‘17

‘18

‘19

‘20

‘22

‘23

Our Sustainability Journey

Releases first comprehensive Sustainability Report, outlining the company’s sustainability platform and goals

Republic Services merges with Allied Waste, forming one of nation’s largest environmental services providers

CNG trucks reduce fleet emissions at scale

Landfill gas generates electricity and RNG

Opens world’s largest materials recovery facility at Newby Island Resource Recovery Park in Northern California

Establishes Mission of Supporting an Inclusive Culture (MOSAIC)

Names to DJSI and CDP A List for the first time

Establishes Charitable Foundation and launches companywide charitable giving program, National Neighborhood Promise

Announces creation of Polymer Center, nation’s first integrated plastics recycling facility

$2.2B acquisition of US Ecology results in industry’s broadest set of product and service offerings

Launches joint venture with bp to develop portfolio of landfill RNG projects

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Opens company’s largest landfill solar project to date in Massachusetts

Begin testing first EV, a Mack LR electric collection truck

Rolls out first fully integrated electric collection truck with Mc Neilus/Oshkosh; scales commitment to EV fleet

Our Sustainability Journey

ABOUT US
OUR APPROACH
SAFETY
TALENT
CLIMATE LEADERSHIP
COMMUNITIES
OUR PROCESSES

2022 SUSTAINABILITY REPORT | 15
Corporate Governance

It is our responsibility to deliver results in the right way, with care for the environment, the communities we serve, our employees and stakeholders. We operate within a comprehensive corporate governance framework that defines responsibilities, sets high ethical standards of professional and personal conduct, and helps ensure compliance with these responsibilities and standards.

Board of Directors
Republic Services’ board of directors consists of 11 members with a wide array of perspectives and skillsets to help drive our company forward while representing the long-term interests of our shareholders. Our board is led by a non-executive chair, which helps to strengthen the board’s independence and enables the CEO to focus on managing the business.

Sustainability Oversight
A strong commitment to sustainability is critical to our success. Our board oversees our sustainability initiatives and conducts quarterly reviews of our sustainability performance and progress toward our 2030 Sustainability Goals.

The board’s Sustainability & Corporate Responsibility Committee oversees our sustainability performance, our corporate responsibilities, our role as a socially responsible organization, and our enterprise risks and opportunities related to climate change, community engagement, environment, reputation and safety.
Employee Total Rewards

As part of our commitment to meaningful employment practices that make us an employer of choice, Republic Services provides a total rewards package, with competitive wages and comprehensive benefits to all employees. An expanded list of benefits can be found in GRI 401-2.

EXECUTIVE COMPENSATION TIED TO SUSTAINABILITY METRICS

The performance metrics used for our executive compensation program strongly align with shareholder interests and support our business strategy. In 2022, the Talent & Compensation Committee modified the annual incentive portion of the program to further align compensation with our sustainability-related strategic priorities. The annual incentives for senior executives are now subject to adjustment, positively or negatively, by up to 10% based on the company’s interim performance on Safety, Talent and Climate Leadership goals.

HIGHLIGHTS INCLUDE:

Wage Increases: To ensure our wages are keeping pace, we give annual merit increases that incorporate the employee’s performance, tenure or experience, and offer a market-specific competitive landscape.

Paid Time Off (PTO): We support a healthy balance between work life and personal life with PTO.

Health Care: Offerings include medical, dental and vision insurance for employees and their families.

Retirement Plan: Our 401(k) program includes employer matching.

Employee Stock Purchase Plan (ESPP): Our ESPP provides employees the opportunity to acquire a stock ownership interest in Republic Services at a discount.

Parental Leave: Paid time off is provided for primary and secondary parents following a birth or adoption.

Employee Assistance Program (EAP): Our EAP supports employee well-being through counseling, assessments or referrals.

Performance-Based Awards: We reward performance through programs including Dedicated to Safety and Dedicated to Excellence awards, which recognize perfect safety, service and attendance for drivers, operators and technicians; and Winner’s Circle, honoring top sales leaders.

We also offer guidance and tools to manage overall worker financial wellness. This is an important way we round out our total rewards package and provide opportunities for a stable career, including skills training, job retraining, mentoring programs and leadership development.

Benefits available to all employees unless specifically excluded within a collective bargaining agreement or prohibited by law.

<table>
<thead>
<tr>
<th>Sustainability Element</th>
<th>Metric</th>
<th>2030 Goal</th>
</tr>
</thead>
<tbody>
<tr>
<td>Safety</td>
<td>Incident Reduction (TRIR)</td>
<td>&lt;2.0</td>
</tr>
<tr>
<td>Talent</td>
<td>Leadership Diversity</td>
<td>50%</td>
</tr>
<tr>
<td>Climate Leadership</td>
<td>Circular Economy</td>
<td>3.4M tons</td>
</tr>
</tbody>
</table>

1Benefits available to all employees unless specifically excluded within a collective bargaining agreement or prohibited by law.
Sustainable Spending

Republic Services is committed to growing and maintaining a supply chain that is diverse and sustainable. By promoting an inclusive approach to procurement, we aim to drive economic empowerment within diverse communities.

We’ve incorporated supplier diversity goals into our strategic sourcing and procurement processes to broaden our Tier 1 supply chain base. A Tier 1 supplier is a direct supplier to Republic Services. Tier 2 is a supplier or subcontractor for a Tier 1 supplier. We encourage our nondiverse prime suppliers to report Tier 2 spends to ensure we have an end-to-end diverse supply chain.

A diverse supplier is a business that is at least 51% owned, operated and controlled by a member in one of the five major classifications and certified. These include:

• Women Business Enterprises
• Minority Business Enterprises
• Disabled-Owned Business Enterprises
• Service-Disabled and Veteran Business Enterprises
• LGBTQ+ Business Enterprises

A Milestone 1: Increase spend by 50% with certified Black-Owned Businesses

2022 Progress: 59% increase over 2021

Milestone 2: Increase spend by 50% with Women-Owned Businesses

2022 Progress: 55% increase over 2021

We are dedicated to spending $150M with certified diverse suppliers by 2030. Milestones include attaining a 50% increase in spend with certified Black- and Women-Owned businesses.

Sustainability in Action

We’ve extended our focus on sustainability to the financial transactions we make as a company. We continue to increase our use of minority-owned financial institutions and have expanded the use of business loans that have sustainability-linked key performance indicators (KPIs).

• Minority-Owned Financial Institutions: We have a goal to spend $1 million with minority-owned financial institutions cumulatively over five years, with 50% of this spend focused on Black-owned banks. As of 2022 we are only three years into this commitment and have spent more than $700,000 with minority-owned financial institutions, with more than 55% of this spend going to Black-owned banks.

• Sustainability-Linked Loans: We are utilizing sustainability-linked KPIs in business loans to further demonstrate our commitment to meeting our sustainability goals and help generate favorable financial terms for the company. We have tie factors of a lending facility to two of our sustainability goals: Incident Reduction and Renewable Energy. For each KPI, annual upper and lower thresholds were established. Positive performance will generate savings in bank fees and an improvement in our credit facility borrowing rate. Poor performance will result in financial penalties, which provides additional incentive to meet our sustainability goals.

Supplier Diversity Spend

Goal: $150M spend with certified diverse suppliers by 2030

We are dedicated to spending $150M with certified diverse suppliers by 2035. Milestones include attaining a 50% increase in spend with certified Black- and Women-Owned businesses.

Milestone 1: Increase spend by 50% with certified Black-Owned Businesses

2022 Progress: 59% increase over 2021

Milestone 2: Increase spend by 50% with Women-Owned Businesses

2022 Progress: 55% increase over 2021

Our Supplier Diversity Page

Our Supplier Diversity Page

2022 Sustainability Report | 18
With many of our employees and one of the country’s largest fleets on the road every day, it is vital that safety is part of everything we do.

Republic Services Operations Center
With locations across North America, it’s essential that we keep our people and assets safe and our operations running. That requires a state of constant alert as well as business continuity procedures for a range of situations and timely communications. To streamline these logistics, we developed the Republic Services Operations Center (RSOC). The RSOC team’s duties include:

- Receiving critical incident reports from field locations
- Tracking real-time data to monitor potential threats to a facility or to employees
- Notifying traveling employees of nearby disturbances or natural disasters
- Communicating an incident to first responders and to company leaders
- Remote guarding of sites via camera

900 locations
24/7 monitoring
**Safety First**

Safety is at the forefront of everything we do, and in 2022, we renewed our focus on preventing recordable incidents. This effort resulted in a 19% improvement in our OSHA Total Recordable Incident Rate (TRIR) over 2021.

The first step was prioritizing safe practices through our Focus Together program. Next, we instituted a telemedicine service to triage employee incidents. In many cases, the telemedicine provider was able to provide immediate treatment guidance from a medical professional familiar with our line of work.

**OSHA Recordable Incidents**
- Any work-related fatality
- Any work-related injury or illness that results in loss of consciousness, days away from work, restricted work or transfer to another job
- Any work-related injury or illness requiring medical treatment beyond first aid
- Any work-related diagnosed case of cancer, chronic irreversible diseases, fractured or cracked bones or teeth, or punctured eardrum

1 One additional fatality is pending investigation and was not OSHA reportable at the time of this report.

2 Occupational Safety and Health Administration (OSHA) is the main federal agency charged with the enforcement of safety and health standards. The OSHA Total Recordable Incident Rate (TRIR) is a function of the number of recordable injuries and the total number of hours worked. Published OSHA data lag one calendar year. Industry average refers to Solid Waste Collection, NAICS 562111.
Focus Together

Our first priority is to be safe, and we’re dedicated to protecting our colleagues and the communities we serve. To reinforce this commitment, Republic Services developed an industry-leading safety platform – Safety Amplified – which consists of six components.

The platform’s core program is Focus Together, and it’s designed to help all of our employees make it home safely at the end of the day. Focus Together includes training, videos, talking points and other information, including a monthly toolkit designed for field locations. Each month features a different safety topic – such as Distracted Driving, Pedestrians and Situational Awareness – intended to prevent incidents with life-threatening impacts.

With many of our employees on the road every day, it’s essential that safety is part of everything we do.

SAFETY AMPLIFIED

Focus Together
The heart of our safety platform provides our workforce with best-in-class training to help frontline employees eliminate the most common types of serious incidents.

Lead Together
We prioritize communication with employees by engaging with them, coaching and mentoring, and following through on commitments.

Partner Together
Staying safe requires involvement by employees at all levels, including leadership visits to support each division’s safety goals.

Innovate Together
We utilize advanced fleet technology, including automation, rear cameras, in-cab backup alarms and event recording systems to help keep people safe.

Analyze Together
We evaluate real-time data, including roadway awareness and data mapping, to inform decision-making and identify opportunities for growth.

Celebrate Together
We recognize our teams’ positive impacts and achievements by tracking safe days and sharing proven best practices.

SAFETY IS GOLDEN

Republic Services’ April 2022 Focus Together video, “Choices,” received top honors in the annual Telly Awards, which recognize excellence in video and television across all screens. “Choices” follows an unseen character who tries to disrupt several Republic drivers as they go about their days, forcing them to make the right choices to stay safe. This is the second time a Republic safety video has won a Gold Telly.

WATCH THE VIDEO
Next-Gen Truck Safety

Our trucks are designed with many safety features. Here are just a few of them, including new ideas designed to make them even safer.

1. Brake light bar
   Republic Services designed a rear light bar that spans the width of the truck and utilizes multiple LED lights for better visibility.

2. Automatic side load (ASL)
   76% of our residential routes are automated, keeping a driver in the cab and out of harm's way. We continue to convert routes to automation.

3. Collision-avoidance cameras
   These cameras analyze roadway conditions and driver habits, allowing the opportunity for coaching to modify behaviors before an incident occurs.

4. Direct visibility
   Designed in partnership with Together for Safer Roads, an enlarged windshield and additional side windows in the cab will offer a driver greater visibility. Coming in 2023.

5. Driver assistance technologies
   We're working with equipment manufacturers to incorporate technology including 360-degree cameras, lane-departure monitoring and advanced braking. Coming in 2023.
EMERGENCY RESPONSE

Protecting People, Property and the Environment

We operate 50 land-based and 15 marine-based emergency response locations throughout North America, which help keep our customers and communities safe.

Republic Services’ treatment and disposal capabilities, combined with our response operations, provide a complete and environmentally responsible solution to a customer’s emergency.

Crews are trained to manage emergency cleanups for our customers on land, over the road, on rail or in the water. Emergency response incidents can include oil spills, train derailments, tanker truck rollovers, chemical releases and natural disasters, such as hurricanes and wildfires.

We prioritize reuse and recycling of spilled materials when possible: for example, oil recovered from a spill can be re-refined or blended into fuel for an industrial application. We also leverage a network of environmental organizations for specialized cleanups, like rescuing wildlife after a spill.

In Water
Along the nation’s shorelines, we’re providing not only response services but also protection. Shipping fleets are required to have first responders on standby in case of an oil spill. Our maritime operations are Coast Guard certified as an Oil Spill Response Organization (OSRO), and we help protect our customers who transport oil in or out of the United States. In 2022, we were on standby for nearly 15,000 voyages.

MARINE OPERATIONS IN 2022

| 14,816 | Voyages monitored |
| 237    | Drills and exercises |
| 70     | Customer spills mitigated |
NWRA Driver of the Year

There is no greater honor in this industry than to be recognized for a career dedicated to safety. The National Waste & Recycling Association’s Driver of the Year awards honor drivers who safely operate their trucks, maintain a superior performance record and enhance the overall safety and image of the environmental services industry. Republic Services drivers swept the national category in 2022, with two drivers tying in the National Residential category for the first time.

Frank Epps
NATIONAL COMMERCIAL DRIVER OF THE YEAR
Driver Frank Epps has more than 30 years of experience with Republic Services in the Branson, Mo., market. Frank got his start in the industry by working at his family's waste disposal business after school. Over the course of his career, Frank developed a passion for safety and a commitment to customer service.

Jason Tavares
NATIONAL INDUSTRIAL DRIVER OF THE YEAR
Jason Tavares is a 28-year Republic Services driver in our Yorktown, Va., division. He follows in the footsteps of his father, who was a collection driver, and he considers his coworkers to be family. His supervisor says Jason demonstrates what it means to be Committed to Serve, one of the company's values.

Kevin Johnston
NATIONAL RESIDENTIAL DRIVER OF THE YEAR
Kevin Johnston has been a residential driver with Republic Services in Mt. Vernon, Ill., for 14 years. His operations supervisor says, "Kevin embodies Customer Zeal and the Republic Way. He comes to work with a desire to go the extra mile to take care of his customers like it was the first day on the job."

Richard Denshuick
NATIONAL RESIDENTIAL DRIVER OF THE YEAR
Part of the Republic Services team in Philadelphia, Richard Denshuick has been with the company for 12 years. He has been a driver for the majority of his career and lends his expertise to training new drivers. Rick's commitments to safety and customer service make him an invaluable member of the team.
This ROAD-EO Has Horsepower

Republic Services’ ROAD-EO National Championship is the company’s premier safety and employee engagement event, celebrating our best drivers, heavy equipment operators and technicians. Nearly 100 competitors came together in Phoenix in early 2023 to face off in our fourth companywide ROAD-EO.

Drivers and operators navigated a timed skills course with challenges they could encounter in their daily jobs; technicians were tasked with identifying maintenance issues on a truck or bulldozer. To qualify for the competition, finalists had to win a local ROAD-EO and maintain an impeccable safety record. Awards for first, second and third place included cash prizes and paid time off – and, of course, bragging rights as one of the company’s best.

BY THE NUMBERS

250 local qualifying events

93 finalists

MEET THE ROAD-EO WINNERS

Chuck Thorpe
Telford, Pa.
Small Container Driver

CJ Hines
Sandusky, Ohio
Rear-Load Driver

Michael Kennedy
Winchester, Va.
Collection Technician

David Talas
Phoenix, Ariz.
Wheel Loader Operator

Donovan Laird
Jefferson City, Mo.
Side-Load Driver

Michael Kennedy
Winchester, Va.
Collection Technician

David Talas
Phoenix, Ariz.
Wheel Loader Operator

David Muns
Las Vegas, Nev.
Bulldozer Operator

Gregory Smith
West Grove, Pa.
Large Container Driver

CJ Hines
Sandusky, Ohio
Rear-Load Driver

Donovan Laird
Jefferson City, Mo.
Side-Load Driver

David Muns
Las Vegas, Nev.
Bulldozer Operator

WINNER SPOTLIGHT
Chuck Thorpe – First NWRA Driver of the Year winner (2018) to win at ROAD-EO. Also a 16-year Dedicated to Excellence recipient:
• No preventable accidents
• No safety occurrences
• Outstanding commitment to customers
• Perfect attendance

MEET THE ROAD-EO WINNERS

Chuck Thorpe
Telford, Pa.
Small Container Driver

CJ Hines
Sandusky, Ohio
Rear-Load Driver

Michael Kennedy
Winchester, Va.
Collection Technician

David Talas
Phoenix, Ariz.
Wheel Loader Operator

Donovan Laird
Jefferson City, Mo.
Side-Load Driver

Michael Kennedy
Winchester, Va.
Collection Technician

David Talas
Phoenix, Ariz.
Wheel Loader Operator

David Muns
Las Vegas, Nev.
Bulldozer Operator

Gregory Smith
West Grove, Pa.
Large Container Driver

CJ Hines
Sandusky, Ohio
Rear-Load Driver

Donovan Laird
Jefferson City, Mo.
Side-Load Driver

David Muns
Las Vegas, Nev.
Bulldozer Operator

Gregory Smith
West Grove, Pa.
Large Container Driver

CJ Hines
Sandusky, Ohio
Rear-Load Driver

Donovan Laird
Jefferson City, Mo.
Side-Load Driver

Shawn Alexander
Arlington, Texas
Post-Collection Technician

2022 SUSTAINABILITY REPORT | 25
Sustainable ROAD-EO

Our ROAD-EO National Championship is not just our flagship safety event – it’s also our premier sustainability event. Through our own practices, we demonstrate the array of sustainable solutions we offer to our customers. For example, simple swaps in event signage had a big impact on the event’s sustainability. Instead of printing vinyl banners that ultimately would end up in the landfill, we used corrugated cardboard and scrim fabric, which could be recycled or reused.

After the event, cardboard was delivered to our nearby recycling facility. A more unique approach was needed for nearly 275 fabric banners. Enter the Tiger Mountain Foundation and its Garden of Tomorrow.

The aim of the South Phoenix community garden is to plant fruits and vegetables while cultivating better communities. Our lightweight fabric banners were ideal for reusing in the garden to provide shade for produce and to line planting beds to help retain moisture and reduce water usage.

Here are more of the ways we put sustainability in action and made our ROAD-EO National Championship the most sustainable yet:

• Promoting diversion through recycling and composting
• Converting signage to recyclable and reusable materials
• Reducing single-use water bottles
• Providing refillable bottles
• Utilizing compostable flatware
• Donating edible food
• Composting food waste
Focus on Engagement
By prioritizing Talent, the Robstown, Texas, team saw their employee engagement score increase 5 points in 2022. GM Celina Camarena credits the improvement to focusing on four main areas with her employees:
• Connection
• Meaning
• Impact
• Appreciation

“Overall, employees need to feel their work is meaningful and take pride in their job,” Camarena said. In addition to higher engagement, the Robstown team also saw positive results in safety and compliance as well as strong financial performance.
How We Put Engagement into Action

Employee engagement is the measure of enthusiasm and dedication an employee feels toward their company and the work they do. It’s important because engaged employees are better employees. Research\(^1\) shows that organizations with highly engaged team members are safer, more productive, have lower turnover, provide better customer service and are more profitable.

Republic Services has long measured employee engagement, and our scores and participation rates consistently outperform industry and national benchmarks. Our aspiration is an engagement score of 88, which would put us in the top 5% of U.S. companies, as measured by Glint, our third-party survey provider.

We conduct Employee Experience Surveys twice a year, and in 2022 had a score of 85 with a 97% participation rate. To promote inclusion, our survey is offered in five languages: English, Spanish, Vietnamese, French Canadian and Haitian Creole. Every voice matters, and we are committed to taking action on the feedback we receive. We are listening, and employees are noticing. One survey question asks whether employees have seen action taken since the last survey. Our score on this question rose 5 points in 2022. Feedback included a variety of suggested changes, and actions taken ranged from paving the parking lot of a local business unit to having conversations about career paths.

Employee engagement is a core part of our business strategy, which is why we compensate our General Managers, in part, on their employee engagement scores. This reinforces the importance of leaders listening and taking action on employee feedback and helps ensure that our leaders are held accountable and rewarded for their efforts to drive a more engaged workforce.

\(^1\)www.gallup.com/workplace/236927/employee-engagement-drives-growth.aspx
Our Diverse Workforce

We value an inclusive and human-centered culture, one in which the dignity and potential of every person is respected. We celebrate diversity and are committed to fostering a workplace where employees can bring their whole selves to work.

We continually strive to maintain a high-performing workforce that is diverse, engaged and well-prepared to meet the needs of our customers and communities. We're proud that our frontline workforce closely represents the communities we serve. As of 2022, nearly half of our total workforce – 47% – is ethnically diverse.

47% Racial/Ethnic Diversity
20% Women
11% Veterans

40,000 TOTAL EMPLOYEES

DIVERSITY IN LEADERSHIP

We believe that the most diverse teams are the highest-performing teams. Having a broad range of ideas and perspectives enables us to best serve our customers. That starts with our leadership. We've set a target to increase our diversity in leadership positions, defined as supervisor and above, to 50% by 2030, and we continue to make progress. As of 2022, 45% of our leaders were women and/or ethnic minorities.

Goal: 
50% diversity in leadership roles by 2030

Leadership Diversity\(^1\)

\(^1\)Gender and/or racial/ethnic diversity

2017 2018 2019 2020 2021 2022

38% 45%

2022 EEO-1

| White - 53% |
| Hispanic/Latino – 24% |
| Black/African American – 19% |
| Asian – 2% |
| Indigenous/Native American – 1% |
| Other – 1% |
A Pledge for Inclusion

Republic Services is a proud signatory of the CEO Action for Diversity and Inclusion pledge, which aims to support more inclusive workplaces. Signers of the pledge believe the business community has the opportunity, as well as a responsibility, to accelerate progress on the most pressing issues facing society today.

Our President and CEO Jon Vander Ark is among more than 2,400 CEOs who have pledged to:

- Cultivate environments that support open dialogue on complex – and often difficult – conversations around inclusion and diversity
- Implement and expand unconscious-bias education and training
- Share best-known inclusion and diversity programs/initiatives – as well as those that have been unsuccessful
- Engage boards of directors when developing and evaluating inclusion and diversity strategies

BUSINESS RESOURCE GROUPS

Our newest Business Resource Group (BRG) is PRISM, which stands for Pride, Raising awareness, Involvement, Support and Mentorship. PRISM aims to connect, celebrate and build a community with our LGBTQ+ employees and their allies to foster a sense of belonging at Republic Services. The group launched in June 2023, in conjunction with Pride Month.
Diversifying Our Ranks

Representation matters. That’s why we’re continuing to take meaningful steps to attract, hire and retain talented people who are a mix of genders, races, abilities and experiences — people who reflect the communities in which we live and work. We’ve expanded our network of partnerships and recruiting events to broaden our reach to women, veterans, persons with disabilities and members of marginalized communities.

PARTNERSHIPS AND PROGRAMS

**SkillBridge**

Republic Services’ SkillBridge program, operated under the umbrella of the U.S. Department of Defense, offers three- to six-month internships to active-duty service members nearing military retirement or separation. The program supports service members from all branches of the military as they transition to civilian life with hands-on experience, training and mentorship.

**The Consortium**

We are a corporate partner of the Consortium for Graduate Study in Management, which fosters a network of the country’s best students, leading MBA programs and partners including Fortune 500 companies. Our shared goal is increasing diverse representation in management roles.

**Forté**

Republic Services partners with the Forté Foundation, an alliance of talented women, influential companies and leading universities, to help elevate women in the workplace and expand our leadership pipeline. Forté aims to open doors and empower women through equal access to education, role models, professional networks and leadership training.

HIRING OUR HEROES

On Veterans Day 2021, Republic Services announced “Road to 5K,” a commitment to employ 5,000 veterans by 2025 and drive a more diverse and inclusive culture. At the end of 2022, we counted 4,400 veterans among our team, a 26% increase over the prior year. We’re on track to reach 5,000 by the end of 2023.
Training and Development

Training and development are vital components of our culture, where people of all backgrounds can grow and thrive. While we're always looking to build our talent pipeline, we're just as focused on ensuring that our current employees at all levels have the skills to be successful in their roles and the opportunity to advance within the organization.

**CDL Training**
No CDL? No problem. Republic Services offers prospective drivers the opportunity to train for their commercial driver's license while becoming familiar with Republic’s collection trucks and processes. The CDL program is a formal training, including a minimum of 50 hours of drive time with a certified Republic Services behind-the-wheel instructor to prepare participants to pass state CDL exams.

**General Manager Accelerated Program (GMAP)**
Our full-time, 24-month GMAP program offers on-the-job training and formal learning through a structured sequence of responsibilities and rotation through key roles within the company. Participants can build close working relationships with executives, managers, employees and customers. This program is available to MBAs with previous leadership experience and is designed to place participants in a General Manager role within two years.

**MBA Internship Program**
The MBA Internship Program is a paid summer job that provides experience in Republic’s field operations along with exposure to our executive leadership team through a focused 10-week project. A program manager guides the cohort through the program, and each intern is assigned a dedicated mentor. Experience in the program can be a steppingstone to the GMAP program.

**Leadership Training Program**
Republic’s Leadership Training Program is a full-time, 18-month rotational development program that offers learning opportunities, ongoing job training and a supervisor boot camp. This program is available to graduating college seniors and those seeking an improved understanding of our industry. It is designed to place participants in an Operations Manager role within 18 months.

**Republic Services Leadership Academy**
The Leadership Academy is a yearlong, transformative development experience for midlevel Republic leaders. It is designed to increase capabilities in their current role and support growth toward greater responsibilities by strengthening leadership effectiveness, business acumen, strategic thinking and innovation. The experience includes online leadership and business curriculum through eCornell.

**Leadership Fundamentals**
Leadership Fundamentals is a two-day, in-person workshop for field leaders that focuses on communication, engagement, driving performance, providing feedback, coaching, leading difficult conversations and leadership styles.

**University of Phoenix Partnership**
Republic Services has partnered with the University of Phoenix on advanced education opportunities for our employees. The University of Phoenix offers over 70 degree programs, industry-relevant programs and professional development courses, with tuition savings for Republic employees toward a bachelor’s or master’s degree.

**Tearing the Paper Ceiling**
Part of inclusion and diversity is recognizing and rewarding a diversity of backgrounds and experiences. That’s why we recently removed a college degree as a requirement or preference for the majority of our roles. The goal is to create additional opportunities for our employees, attract new talent and make our company stronger.
Building a Talent Pipeline

Keeping our fleet on the road requires a team of skilled technicians to perform preventive maintenance and repairs. This is such a crucial role that we’ve launched an innovative training facility to help build a talent pipeline and offer ongoing training to develop and retain our talent.

The Republic Services Tech Institute in Dallas offers a tuition-free education experience to work toward certification as a fleet maintenance technician or advance to more highly skilled technician roles.

There are three levels of certified automotive technician: C, B and A. Tech Institute programs range from four-day continuous development courses to four-week C-Technician training to two-year apprenticeships.

A reduction in high school technical training programs over the last three decades has reduced the number of students entering skilled trades. Many people learn by doing, and a traditional college classroom doesn’t meet this need.

We developed the Tech Institute in partnership with the U.S. Department of Labor and Lincoln Technical Institute, a leader in post-secondary education for auto, diesel and skilled trades. In addition to teaching technical skills, the Tech Institute curriculum supports worker financial wellness through life-skills training, including financial literacy, emotional intelligence and leadership development. The aim is to position students for success in both their professional and personal lives.
Matt M., Tampa, Fla.

Matt M. found the career he’d been looking for after completing Republic Services’ Tech Institute apprenticeship program and joining our Tampa business unit as a technician.

He’d been working as a laborer in the construction industry and would help fix heavy equipment, replacing hydraulic lines or changing filters. That led him to enroll in Lincoln Tech’s automotive program for more formalized training. As graduation approached, he learned about the Tech Institute, which offered the opportunity for paid training in Dallas followed by placement at a Republic Services location.

Though working on diesel engines was new to Matt, he said the Tech Institute’s fully immersive program quickly brought him up to speed and helped build his confidence. Students also had the chance to rotate through shifts at a nearby Republic maintenance shop. Matt said he signed up every time; he wanted to gain real-world experience and work alongside experienced Republic technicians.

“\textit{I want to be able to say: I’ve been here 30 years at the same location. Time to put on my hat and walk out the door.}”

Matt joined Republic’s Tampa business unit at the end of 2021 as an apprentice and already has worked his way up to B-Technician. He appreciates that his fellow techs were willing to teach him, and he was willing to learn. Now, he’s the one training a new hire.

Matt says working for Republic Services is the first time he’s had a “career job,” which is what he’d been working toward. His maintenance manager has been with Republic for more than 30 years at the same location and is looking toward retirement, when, he says, he’ll put on his hat and walk out the door. Matt says that’s his goal now. “I want to be able to say that one day: I’ve been here 30 years at the same location. Time to put on my hat and walk out the door.”

Kat S., Indianapolis

Before Kat S. began her journey to becoming a C-Technician at our Indianapolis business unit, she’d never changed the oil in her car. She enrolled at Lincoln Tech and earned her associate degree, and that’s where she learned about Republic’s Tech Institute.

Kat liked the idea of the paid training in Dallas, and she knew there were Republic Services locations all over the country. She wanted the opportunity to explore a new location, and joining Republic seemed like a stable way to do that. Through Lincoln Tech, she’d learned about different systems involved with maintaining a diesel truck; at the Tech Institute, the opportunity to work on actual Republic trucks in a learning environment helped her put it all together.

Though she hadn’t worked in a maintenance shop before joining Republic, she was familiar with our trucks. That allowed her to jump in immediately on preventive maintenance as she learned the process of how the shop runs.

Her maintenance manager says Kat made a big splash when she joined the Indianapolis team and has quickly become one of the top techs. She’s been able to take on every job without becoming overwhelmed and has lightened the load on her colleagues – who are already lobbying for Kat to be elevated to B-Technician.

Kat says she appreciates working for a company that’s dedicated to training. “Honestly, I feel a bit pampered, career-wise. You don’t really get that a lot in this industry.”
We are focused on delivering services and solutions for a more sustainable world.

**Route Optimization**

Our Western Twin Cities team was operating about 175 collection routes for residential, commercial and industrial customers in the Minneapolis suburbs. GM Brandon Schuler and his team conducted a route optimization analysis to look for efficiencies and found significant benefits to customers, the environment and the bottom line. By redrawing routes to align stops by time and location, the team was able to consolidate 14 full routes daily, or 70 route days per week. That resulted in a reduction of 234,000 miles driven annually, saving 78,000 gallons of fuel and avoiding 1.75 million pounds of carbon dioxide emissions. Reducing the number of daily routes also helped the division weather a challenging labor market.
Science Based Targets initiative (SBTi)

Republic Services is the first U.S. environmental services provider with an emissions reduction goal approved by the Science Based Targets initiative (SBTi).

A science-based target is a clearly defined pathway to reduce greenhouse gas emissions in line with levels required to meet the goals of the Paris Agreement, an international treaty on climate change adopted in 2015. The agreement intends to limit global warming to prevent the worst impacts of climate change.

A science-based target supports economic as well as environmental sustainability, driving innovation, brand reputation and investor confidence. To date, more than 2,800 companies worldwide have set emissions reductions targets approved by SBTi.

The SBTi is a partnership among CDP, the U.N. Global Compact, World Resources Institute (WRI) and the World Wide Fund for Nature (WWF).

GOAL

Science-Based Target

Reduce absolute Scope 1 and 2 greenhouse gas emissions 35% by 2030. Interim goal of 10% reduction by 2025.

Scope 1 and 2 Greenhouse Gas Emissions

- **Goal**: Reduce absolute Scope 1 and 2 greenhouse gas emissions 35% by 2030.
- **Interim goal**: 10% reduction by 2025.

GHG data is third-party verified

1 Approved by Science-Based Targets initiative
2 2017 baseline year
Supporting a Circular Economy

Climate leadership requires a commitment to circularity and keeping materials in circulation for the long-term. The recycling and reuse of materials minimizes the extraction of natural resources, which in turn reduces greenhouse gas emissions and helps preserve wildlife and ecosystems.

The materials we collect from residential, commercial and industrial waste streams all directly support a circular economy.

Our recycling facilities process and sort materials including cardboard, paper, metals and plastics and return them to the marketplace for use in sustainable packaging and other items.

Our organics operations recycle food and yard waste into nutrient-rich compost or renewable natural gas. We also support food-rescue programs that recover edible food and distribute it to those in need.

At our landfills, we collect landfill gas and direct it to renewable energy production, creating clean electricity and fuel. Renewable natural gas produced at landfills is used to fuel commercial fleets, including our own collection trucks.

Key materials counted toward our Circular Economy Goal:
- Cardboard
- Metal
- Organics
- Paper
- Plastics

In 2022, the volumes of recycling and biogas that we count toward our goals decreased due to systems upgrades at several major recycling and landfill gas-to-energy facilities. The investments we’re making now are expected to accelerate progress toward our 2030 goals. Diversion from landfills and collection of landfill gas are the most impactful activities we can take to reach our greenhouse gas reduction goal.
DRIVING DECARBONIZATION

Goals
- Achieved initial sustainability goals regarding energy, recycling and fleet
- Announced new 2030 goals to reduce GHG emissions, increase beneficial reuse of biogas and advance circularity

Landfills
- Collected landfill gas for beneficial reuse as energy
- Deployed alternative landfill cover systems to reduce fugitive emissions
- Improved accuracy of landfill emissions modeling through implementation of the Solid Waste Industry for Climate Solutions (SWICS) system

Diversion
- Promoted waste diversion through education campaigns like Recycling Simplified
- Expanded recycling and organics collection and infrastructure to enable greater diversion

Fleet
- Utilized RNG to lower impact of CNG fleet
- Launched EV pilots

Buildings
- Designed new buildings to LEED standards

2023 – 2025

SCALING STRATEGIES

Landfills
- Launch Best-in-Class Landfills program to standardize best practices
- Utilize GPS technology for efficiencies in landfill construction and expansion
- Leverage cloud-based data for proactive, real-time gas collection monitoring and action
- Optimize cover timing to reduce fugitive emissions
- Deploy emissions monitoring and measurement tech
- Support research into evaluating measurement technologies and improving emissions modeling

Diversion
- Open network of Polymer Centers to enable greater plastics circularity

Fleet
- Scale EV fleet to 150+ collection trucks across the country
- Optimize route efficiency to reduce vehicle miles traveled
- Charge EVs with renewable energy

2026 – 2029

ACCELERATING ACTION

Landfills
- Incorporate landfill emissions measurements into modeling for better representation
- Scale innovations in landfill gas collection and cover systems to further reduce fugitive emissions

Diversion
- Grow organics recycling collection and infrastructure to reduce organic waste in landfills
- Scale plastics circularity investments to expand volume entering the circular economy
- Increase growth of recycling infrastructure and technology to expand diversion capacity

Fleet
- 50% of new truck purchases expected to be EVs

2030 – BEYOND

OUR TARGET
35% reduction in GHG emissions from 2017 baseline year

Our Climate Transition Road Map

Since 2017, we’ve made measurable strides in reducing greenhouse gas emissions and decarbonizing our operations. Moving forward, we believe innovations and investments in landfill gas collection and cover systems, fleet electrification and diversion infrastructure will help us achieve our 2030 goal.
Climate Benefits for Customers

Republic Services provides essential decarbonization solutions for our customers through our initiatives to advance circularity, reduce emissions and produce renewable energy.

In addition to the steps we're taking to reduce the carbon footprint of our operations, we also avoid or sequester greenhouse gas (GHG) emissions through the services we provide to our customers. In fact, the emissions we avoid can be quantified as far larger than those we emit.¹

Climate benefits come from the recycling and reuse of materials, sending landfill gas to renewable energy production and permanently sequestering certain carbon-rich materials in landfills, which avoids GHGs that otherwise would have been produced as the materials biodegraded in an anaerobic environment. Carbon sequestration in landfills is an established concept, recognized by the U.S. EPA.²

While underlying frameworks and timelines can differ, the lifecycle climate benefits of recycling, landfill gas-to-energy and landfill carbon sequestration far exceed the GHG emissions attributed to our landfills, fleet and buildings. We continue to scale our recycling and landfill gas-to-energy infrastructure, increasing these climate benefits and aligning to our strategic plan to leverage sustainability as a platform for growth.

Avoided emissions are measured independently from our GHG inventory, which follows the GHG Protocol, an accounting system that exclusively governs emissions and not climate benefits.

¹Avoided emissions from recycling are calculated using the EPA's Waste Reduction Model (WARM) based on materials recycled in 2022 (tons processed less residual/contamination). These benefits from recycling represent full lifecycle emissions, including avoidance of raw materials extraction, manufacturing or processing, transportation, use and end-of-life management. Likewise, carbon sequestration represents the lifecycle emissions avoided by material disposed in 2022.
²www.epa.gov/warm/landfilling-and-landfill-carbon-storage-waste-reduction-model-warm

Climate benefits come from:

- 7M homes, equivalent to the annual electricity usage of 2022
- 40M total CO₂e
- 3.8M landfill gas-to-energy
- 27.0M carbon sequestration
- 9.1M reuse and recycling of materials

To meet customers' needs, we developed a greenhouse gas (GHG) calculator that estimates a customer's Scope 3 emissions from the end-of-life treatment of their waste and recycling, and the transportation associated with these services.

Understanding their carbon footprint also helps customers increase corporate transparency and meet the growing expectations of stakeholders, including their own customers and investors.

We can calculate a detailed carbon footprint for customers using a combination of internal and EPA data, including annual volume, volume-to-weight conversions, fuel economy, average travel distance and material-specific emissions factors.
Taking Action at Our Landfills

Republic Services is committed to decarbonizing our operations, and we are proud to be taking the lead with the industry’s first greenhouse gas (GHG) reduction goal approved by the Science Based Targets initiative (SBTi).

Reducing our carbon footprint begins at our landfills, where we manage waste for millions of customers across the country. When organic material breaks down in a landfill, it produces biogas, which is about 50% methane, a greenhouse gas. Although landfill gas is the source of only 1.6% of U.S. GHG emissions, it makes up 87% of the Scope 1 emissions addressed by our Science Based Target.

We capture landfill gas with collection wells, and our priority is to convert it into renewable energy. Where energy production is not feasible, landfill gas is thermally oxidized through flares, reducing its global warming potential by 96%.

Today, our landfill emissions inventory is quantified through modeling as opposed to direct measurement. Along with our industry peers, Republic Services utilizes modeling methodology known as SWICS (Solid Waste Industry for Climate Solutions) to report our GHG emissions inventory. SWICS estimates a landfill’s emissions based on factors including gas volume, efficiency of the gas collection system and cover technology. We are continuing to improve on the SWICS methodology to make it more data-oriented.

We believe direct measurement is a vital component of emissions modeling and management, and we’re partnering with industry and academia to test emerging technologies. Direct measurement provides us with data we can operationalize to determine the root cause of emissions. We also are evaluating land- and air-based detection systems that allow us to take action to control fugitive emissions in real time.

1. www.epa.gov/lmop/basic-information-about-landfill-gas

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EMISSIONS CONTROL AND DETECTION

Gas Collection
More than 87% of our landfill acreage is covered by gas collection systems. By maximizing biogas collection efficiency, we minimize gas escaping as fugitive emissions. Included in SWICS modeling.

Landfill Cover
Alternative and transitional landfill cover systems help reduce emissions by blocking gas from escaping. Included in SWICS modeling.

Land-Based Measurement
Ground-based systems utilize handheld or fixed sensors to monitor and measure fugitive emissions.

Aerial Measurement
Technology deployed on satellites, aircraft or drones detects fugitive emissions, identifying opportunities for additional gas wells or remediation.
Nature’s Filtration

We’re committed to supporting watersheds, critical habitats and the environment. Many of our landfills include acreage set aside for preservation and protection of plants or animals. By protecting biodiverse ecosystems, we can strengthen food systems, help regulate the climate and lessen impacts of extreme weather.

At our landfills, we have the opportunity to support biodiversity through the natural treatment of leachate, liquid that has passed through or comes from waste in a landfill. In some cases, we’re treating this byproduct with vegetation in a process known as phytoremediation. Republic Services is utilizing phytoremediation systems at 10 of our closed landfills.

Naturally processing leachate through phytoremediation has eliminated more than 15,000 tanker trips and avoided more than 1 million miles traveled, while reducing the impact on local wastewater treatment facilities.

CONSERVING CRITICAL HABITATS

Our Coffin Butte Landfill in Corvallis, Ore., is home to a 556-acre conservation area dedicated to preservation of the Oregon White Oak. For over a decade, researchers and students from Western Oregon University have been studying the native Oregon White Oak tree and its impact on biodiversity. Republic Services has aided in the research by helping remove invasive species so the White Oak can thrive. Through data monitoring, researchers have identified more than 60 bird, amphibian and reptile species thriving within the oak habitat at our landfill. Several of the birds have been classified as “highly associated” with these native trees, relying on them for critical habitat and food. Since preservation efforts began, sightings of the Acorn Woodpecker have become increasingly frequent, demonstrating the importance of preserving critical habitat.

HOW PHYTOREMEDIATION WORKS

- Poplar trees, vetiver grasses or other carefully selected species are planted at a landfill site.
- Leachate, delivered through drip irrigation, is used to water the vegetation.
- Metals and other compounds found in leachate are absorbed by the vegetation and used as nutrients to fuel their growth.
- These plant species can withstand frequent watering, making them ideal for managing the volume of leachate typically generated in a landfill.
- The trees and grasses also sequester carbon and provide habitat for native species.
FLEET ELECTRIFICATION

Going Electric

As part of Republic Services' efforts to reduce greenhouse gas emissions, we have made the industry's largest commitment to fleet electrification.

Zero-emissions electric vehicles will help us reach our 2030 Science Based Target. EVs will also help our customers – cities, major companies and small businesses – achieve their own climate action goals.

We are electrifying our fleet through a multi-supplier vendor strategy. In 2023, we introduced the industry's first fully integrated electric collection truck, manufactured by McNeilus and Oshkosh Corp. Our team provided insights to Oshkosh engineers regarding operational, safety and ergonomic features. It includes an enlarged windshield for improved visibility, 360-degree cameras, lane departure warnings with automated braking, and adjustable seating and controls for driver comfort.

We have been operating electric vehicles for several years from multiple manufacturers, including Mack and Peterbilt. That experience has given us important insights and the confidence to move forward, at scale, with electrification. By the end of 2023, we expect to have more than 20 EVs in operation.

OUR PROGRESS

2018
- Mack and Peterbilt initial EV discussions begin

2020
- Mack EV pilot (Hickory, N.C.)

2021
- Peterbilt EVs begin collections (Boise, Idaho)

2022
- Five EVs in operation

2023
- McNeilus fully integrated EV unveiled
- More than 20 EVs in operation

2028
- 50% of new truck purchases to be EVs
Recycling Innovation and Investment

Republic Services is advancing the recovery and circularity of key materials from the waste stream through our long-term strategy of innovation and investment in our recycling centers.

By driving advancements in automation and technology, we’re helping to keep materials in the circular economy for the long-term, which reduces reliance on natural resources, avoids greenhouse gas emissions and provides sustainable diversion solutions for our customers.

Our traditional materials recovery facilities process 5 million tons every year of paper, cardboard, metal, plastic and glass, while our specialized processes provide recycling solutions for materials like aerosol cans, glycol and industrial metals.

We’re targeting our investments in three primary areas where we see opportunity to capture more recyclable material, increase efficiency and scale our operations:

1 Automation  
2 Existing markets  
3 New markets

Over the last five years, we’ve invested more than $325 million in recycling infrastructure and technology. In 2022 alone, we made $126.5 million in recycling investments, including:

**INFRASTRUCTURE**
- Our first two Polymer Centers
- Recycling center upgrades
- Expanded organics operations

**TECHNOLOGY**
- 24 optical sorters
- Medium-infrared scanners
- Vision recognition
- Robotics with AI
- Automation
- Anti-wrap paper screens

**$325M+ investment in recycling infrastructure and technology in last five years**
AUTOMATION AND ARTIFICIAL INTELLIGENCE

Just as advances in automation and artificial intelligence (AI) are transforming everyday life, they also have the potential to revolutionize the recycling industry.

In our recycling facilities, these technologies can identify packaging by color, material or even brand, and direct a robotic sorter to pick out contaminants. Automation can also increase efficiency, help keep workers safe from potential hazards and support operations amid a challenging labor market.

We recently piloted a new robotics and AI system at our Tucson, Ariz., recycling center. A robotic sorter was installed as a final quality control check for aluminum to remove any non-aluminum materials. Using its AI scanner, the robot was 99% successful in identifying non-aluminum items, and it removed them an average of 32% faster than a human sorter.

AI also was used to analyze the facility’s stream of materials identified as contaminated or non-recyclable. Good recyclables will sometimes be errantly diverted to this waste stream, which is destined for the landfill. This real-time data allowed facility operators to adjust processing equipment to increase the recovery of recyclable materials.

We believe this technology will also help as we plan equipment upgrades and new recycling facilities.

BENEFITS OF AUTOMATION AND AI

- 24-hour operating capability
- Increased efficiency
- Safety
- Quality control
- Real-time analytics

1The tons managed total includes material processed by our recycling or organics facilities, collected by us and processed by a third party, and brokered through our materials management group. Materials are weighed after processing, so these percentages represent tons sold and do not include inbound contamination.
POLYMER CENTER

Advancing Plastics Circularity

The Republic Services Polymer Center is the first recycling facility of its kind in North America, processing plastics collected from homes and businesses and producing specialized recycled resins ready for remanufacturing into new packaging. Our first Polymer Center is on track to open in Las Vegas in the second half of 2023, with a nationwide network under development.

CHALLENGE
Today, many plastics are downcycled into products that have few options for further recycling—like clothing or carpet, construction pipes or park benches.

SOLUTION
Our Polymer Centers will produce high-quality, color-sorted recycled PET, HDPE and Polypropylene ready for use in sustainable packaging to meet voluntary commitments and legislative mandates.

HOW THE POLYMER CENTER WORKS

PET

HDPE & PP

Bales of PET, HDPE and Polypropylene (PP) from our recycling facilities will be transported to the Polymer Center for secondary processing using innovative technology. These are the most common types of hard plastics found on store shelves and include water or soda bottles, milk and detergent jugs, and yogurt cups or butter tubs.

PET will be diverted to one path, which includes optical scanning to sort colored plastics from clear, shredding into flakes and cleaning in a caustic wash. The result is a hot-washed rPET flake ready to be remanufactured back into a beverage bottle.

HDPE and PP will follow a second path, which includes a series of optical and medium-infrared scanners. These specially sorted plastics will be baled by color and type, producing, for example, a bale of orange HDPE or white PP. Sorting by color allows that recycled orange resin to be used in the manufacturing of a new orange jug rather than being blended with other mixed colors into a recycled black package.

Three additional Polymer Centers are planned across the country. Our second Polymer Center is in development in the Midwest, planned to open in 2024.

100M+

pounds of recycled plastics expected to be produced annually by each facility
Expanding Our Recycling Capabilities

Through our expanded network of products and services, we’re able to recycle materials that can’t be recycled through traditional facilities. Our environmental solutions group operates eight recycling sites to help our business customers divert materials, including aerosol cans, aircraft deicing fluid and scrap metals.

AEROSOL RECYCLING
Our Aerosol Recycling Technology is a fully contained process that recycles the can, its contents and its components. Aerosol cans use pressurized gas, known as a propellant, to spray liquids as a mist. These propellants, which can be more than 10,000 times as potent a greenhouse gas as carbon dioxide, are captured and purified into an alternative liquid fuel. The fuel is then used to power equipment, like generators, at our facilities. In some cases, the alternative fuel is sold to customers to be used in a fuel blending process that can help offset their own power needs. Once the propellants are removed, the cans are collected and recycled to be remanufactured into new cans.

GLYCOL RECYCLING
During the winter months, airports around the country utilize deicing fluid to ensure critical aircraft components do not freeze before takeoff. Glycol, one of the primary components of deicing fluid, can contaminate stormwater if not properly treated. Through our Airport Services, we collect and recycle glycol from stormwater. Our unique approach enables us to offer our airport customers a solution that helps them maintain compliance and minimize their waste.

METAL RECYCLING
Much like our traditional recycling facilities capture metal food and beverage cans, our Metals Recovery Services provide recycling solutions for scrap metals from industrial processes. These scrap metals include tin, nickel, copper, cobalt and zinc from metal plating and grindings, or sludges and residues. By working with a network of smelters, refiners and other operators, we’re able to help our customers recycle valuable metals from their waste streams and divert them from landfills.

DRUM REUSE PROGRAM
When special waste is transported from a customer to a treatment and disposal site, it’s often contained in 55-gallon drums. We instituted a circular solution to reuse and recycle these drums. After the waste is delivered, we clean and pressure-test the drums, then return them to circulation. In 2022, we were able to reuse 30,000 shipping drums. Drums that did not meet the standards for reuse were recycled, yielding 100,000 pounds of recycled metal.
Organics in the Circular Economy

Most of the food and yard waste we collect is recycled into compost and used as a nutrient-rich soil amendment to nourish crops, beginning the cycle again. Food waste from commercial customers like supermarkets and restaurants supports the circular economy, too. We pre-process commercial food waste to remove contamination, then deliver it to an anaerobic digester to be converted into renewable energy for the community.

We continue to invest in organics infrastructure and solutions that help our customers meet recycling requirements and achieve their climate action goals. Organics recycling also directly supports our Circular Economy goal.

Recycling Food Scraps

Over the last year, we’ve helped many of our municipal customers in California prepare for and launch food waste recycling programs in accordance with the new state law. For example, on July 1, we began collecting food waste mixed with yard waste in Carlsbad, Calif. For many residents, this was the first time they’d recycled food scraps. Our team has played an active role in educating the community about the new program by attending farmers’ markets, hosting compost facility tours, and visiting schools and businesses. We also delivered more than 100,000 carts and handed out that many kitchen caddies to help residents easily collect and recycle their organic waste.

Anaerobic Digestion

Republic Services recently expanded our organics recycling capabilities with the acquisition of our first anaerobic digestion facility, located north of Sacramento. The facility recycles food waste and other organics collected from across Northern California. Anaerobic digestion breaks down this organic material and creates biogas, which can be used to generate electricity or converted into renewable natural gas to fuel vehicles in Republic’s fleet. Today, the facility’s operations are fully circular, with biogas generating enough electricity to power the facility.

NWRA Organics Management Facility of the Year

Our Otay Compost Facility in Chula Vista, Calif., was named the 2022 Organics Management Facility of the Year by the National Waste & Recycling Association.

12 Compost facilities in 5 states

4 Green waste processing facilities

3 Commercial food waste pre-processing facilities

2B Pounds = Removing 22K Cars

From the road
Renewable Energy from Landfills

Our customers are looking for decarbonization solutions, and Republic Services is leveraging our network of landfills to meet that need. We’re utilizing biogas created through the decomposition of waste to produce clean energy. Today, we’re involved with 65 landfill gas-to-energy (LFGTE) projects, which directly support our goal to beneficially reuse 50% more biogas by 2030.

**Electricity** 39 PROJECTS

At these sites, landfill gas is used to power generators that produce baseload electricity for the public utility grid. This is an important source of clean electricity as the U.S. Department of Energy works to achieve a net-zero power grid by 2035.

**Renewable Natural Gas (RNG)** 16 PROJECTS

RNG is a low-carbon, pipeline-quality fuel produced from biogas that’s fully interchangeable with conventional natural gas. That makes it an ideal solution for helping decarbonize commercial fleets, including our own. We have an additional 60 RNG projects in our development pipeline.

**PINE BEND RNG PROJECT**

In 2022, Minnesota’s first landfill-to-RNG project opened at our Pine Bend Landfill in Inver Grove Heights. The project is expected to produce the low-carbon fuel equivalent of 6.3 million gallons of gasoline annually, helping the local community and the state achieve their climate action goals.

**Thermal Energy** 10 PROJECTS

Another application for landfill gas is medium-Btu gas, which is used as thermal energy by industrial and commercial customers. This gas undergoes minimal processing then is transferred directly to a customer for use as heat or to fuel boilers.

**Solar Energy** 8 PROJECTS

In addition to LFGTE, Republic Services is generating renewable energy through solar projects we host and others we’re supporting through equity investment. We currently host solar projects at eight sites and consume the energy from three of them, lowering our Scope 2 GHG emissions.

Through our partners, we invested in an additional 100 solar projects in 2022, which generated 1,063,005 MWh, enough electricity to power nearly 100,000 homes annually.
Engaging with and investing in the communities where our employees and customers live and work is a vital part of creating sustainable neighborhoods.

Communities

SUSTAINABILITY IN ACTION

A Company with Compassion

By prioritizing sustainability with a community focus, our Sacramento, Calif., team secured four municipal contracts and launched the region’s first commercial food waste pre-processing facility. Annually, the Northern California team partners with roughly 60 nonprofit organizations, including Rebuilding Together Sacramento, to provide monetary donations, in-kind services, volunteers and contributions to local communities. Municipal Manager Annah Rulon said the Sacramento team can be counted on to help in any state of emergency, natural disaster or storm.
OUR PROGRESS

Making a Bigger Impact

In 2019, we launched our first sustainability goal related to charitable giving, aiming to positively impact 20 million people by 2030. That impact only included charitable grants from the Republic Services Charitable Foundation. We recognize that our local teams also make a significant impact on the communities we serve, and that work was not previously quantified for our sustainability reporting.

Starting with our 2022 reporting and moving forward, we’re holding ourselves accountable with a new and more ambitious goal:

Create sustainable neighborhoods through strong community partnerships for 45 million people by 2030.

The progress we report toward this goal now includes business unit-funded Community Grants and grants from our charitable foundation. Our previous reporting years have not been re-benchmarked and continue to reflect only the number of people positively impacted through foundation grants.

In 2022, our local teams awarded 808 Community Grants, which contributed to sustainable neighborhoods for 1.6 million people. At the same time, the foundation awarded 17 grants, positively impacting another 1.8 million people.

GOAL

Charitable Giving

Create sustainable neighborhoods through strong community partnerships for 45 million people by 2030.

Cumulative Charitable Giving Impact

 Millions of people positively impacted (cumulative)

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2022 SUSTAINABILITY REPORT | 50
National Neighborhood Promise

The signature program of the Republic Services Charitable Foundation is National Neighborhood Promise. This program provides funding for neighborhood revitalization and sustainability projects in communities where Republic Services customers and employees live and work. Our goal is to partner with exceptional local nonprofits to create sustainable neighborhoods through grants, in-kind donations and employee volunteerism.

Since 2017

73 places and spaces across the country improved

9.4M people positively impacted
2022 NATIONAL NEIGHBORHOOD PROMISE PROJECTS

**Bracken’s Kitchen, Orange County, Calif.**
Expand Rescued Food Program, which provides meals crafted from surplus and unused food to those with food insecurity.

**Rebuilding Together Metro Chicago**
Complete critical repairs to Margaret’s Village, which provides transitional housing for homeless women, children and families in Englewood, Ill.

**NewVue Communities, Fitchburg, Mass.**
Revitalize and clean up Riverfront Park, a 1.6-acre reclaimed brownfield along the Nashua River.

**Famicos Foundation, Cleveland**
Preserve and restore St. Mark’s Presbyterian Church, a fixture of the city’s civil-rights movement, to create a community center.

**Rebuilding Together Philadelphia**
Support Hope in the Heart of Kensington project, with gym improvements, green space creation and housing rehabilitation.

**Rebuilding Together Metro Denver**
Develop Empowerment Gardens at a supportive housing community in Commerce City, Colo., for people with a disabling condition or special needs.

**Rebuilding Together Baton Rouge**
Transform vacant land into a community EcoPark, with a garden, pavilion and art installations, along with stormwater control.

**Rebuilding Together of Greater Charlotte**
Improve Tom Hunter Park, with a covered pavilion, restored walking trails and pollinator garden.

**Mid-Willamette Family YMCA, Corvallis, Ore.**
Develop an accessible and fully inclusive playground and community park, including a play structure and pathways.

**Dallas Area Habitat for Humanity**
Build and repair homes in West Dallas while revitalizing the community through a large-scale neighborhood cleanup.
Community engagement is working collaboratively with groups of people affiliated by geographic proximity, special interest or similar situations to support the well-being of the entire group.

To encourage service and support our communities, Republic Services hosted a multi-city volunteerism and giving campaign in honor of Martin Luther King Jr. Day. Employee volunteer events took place in Chicago, Detroit and Memphis, three cities where Dr. King spoke during the civil-rights movement. The Republic Services Charitable Foundation supported the events by contributing $100,000 to partner organizations.

Chicago
We partnered with Rebuilding Together Metro Chicago to revitalize the Ada S. McKinley Aztlan Community Industries Center, which provides day programs for adults with developmental disabilities. In addition to a $35,000 grant from the Foundation, Republic Services volunteers assisted with interior painting, landscaping and building outdoor furniture.

Detroit
Volunteers participated in three days of service to benefit children in the Wayne County foster care system of the Michigan Department of Health and Human Services. Working through Together We Rise, the Republic Services Charitable Foundation purchased $30,000 of items that company volunteers assembled into kits based on recipients’ ages.

Memphis
Republic Services employees worked alongside volunteers with Memphis City Beautiful to complete community beautification projects and litter cleanups in parks and neighborhoods. The day of community service was in addition to a $35,000 donation to Memphis City Beautiful from the Republic Services Charitable Foundation.
Engaged with Our Communities

Strong community partnerships are essential to our work to create sustainable neighborhoods. Across the country, our teams are engaged with their communities daily through educational opportunities, facility tours, touch-a-truck events, cleanup days and more. The communities we serve are our homes, too, and we’re committed to working alongside our neighbors to help keep them thriving.

RECYCLING LEARNING CENTERS
Public education is key to the success of a community’s recycling program. We know consumers have good intentions, but they don’t always know which materials belong in which bin—which is where education comes in. Research shows that education can reduce contamination rates in recycling bins by nearly 50%1. One of the unique ways Republic Services provides recycling education is by engaging the community through our interactive Recycling Learning Centers. These centers allow the public to visit a recycling center and learn about best practices and the mechanics of the recycling process. Republic Services operates three Recycling Learning Centers—in Las Vegas; Plano, Texas; and Seattle, our newest facility.


Texas Coastal Cleanup
Living our company value of Environmentally Responsible means taking action to improve our environment. Our Gulf Environmental Solutions teams did just that as part of the Adopt-A-Beach program in Galveston and Corpus Christi, Texas. Employees and their families joined friends and neighbors to collect over 500 pounds of trash in a single day. The Texas bays and Gulf waters serve as habitats for thousands of birds, fish and other wildlife. By participating in cleanups like these, we are helping to preserve critical biodiversity in the region.

Old Dominion Landfill Tour
The University of Richmond in Virginia aims to divert 75% of its waste by 2025 through on-campus programs like recycling and food waste composting. These efforts are supported by the staff and students of the university’s Rethink Waste campaign. Given their interest in sustainable waste practices, Republic Services’ Richmond team invited the group to visit our Old Dominion Landfill, which hosts a landfill gas-to-energy project. After learning about the science and engineering that goes into a modern landfill, the Rethink Waste group visited the gas-to-energy facility, which generates renewable electricity for the community.

South Carolina Touch-a-Truck
Across the country, Republic Services’ local teams participate in hundreds of touch-a-truck events each year. These events give us the chance to promote safety and teach the community about recycling and waste. In Johns Island, S.C., students and teachers at a local school had the opportunity to see one of our trucks up close. By explaining how a collection truck operates, we can help community members be safe when our truck is servicing their neighborhoods. The Johns Island schoolchildren especially liked the truck’s air horn, too.
Ongoing Commitment to Environmental Justice

Being a good neighbor is a top priority for Republic Services, and we’re proud of the positive impact we have on our local communities and the environment. Environmental justice is an important aspect of our ongoing commitment to the communities we serve.

We have grounded our approach to environmental justice in line with the U.S. Environmental Protection Agency’s definition:

“Environmental justice is the fair treatment and meaningful involvement of all people regardless of race, color, national origin, or income, with respect to the development, implementation, and enforcement of environmental laws, regulations and policies.”

Our standard operating model enables us to deliver consistent, high-quality service to all our customers. We know effective operations are critical to ensuring we have a positive impact in the communities we serve, but it’s only part of the equation. That is why we take a proactive approach in the community and strive to be a good neighbor by engaging with and investing in the communities we serve.

Republic Services both empowers and expects local leadership to be active members of their local communities, while our community relations team provides resources and ensures consistency. We believe it’s important to see a familiar face helping build trust within the community and creating easy-to-access avenues of communication between the community and Republic Services.

Our local leadership teams utilize a Good Neighbor Plan that encourages and guides engagement, involvement and education in the community. These activities include tours and open houses for elected officials and community leaders to view our safety and environmental initiatives; community events such as parades and cleanups; and public education including development of economic impact reports and participation in local associations.

While we emphasize proactive and consistent community outreach, we take pride in being agile, listening to community feedback and being responsive to concerns community members may have. In instances where there are community objections about site operations or plans, our local teams are encouraged to meet with the community to discuss and find common ground.
OUR ANALYSIS
To provide information and insight into our neighboring communities, we’ve analyzed the demographics around our facilities’ locations based on data and terminology from the EPA. We’ve also incorporated the EPA’s interactive Environmental Justice Screening and Mapping (EJScreen) tool on our website to allow stakeholders to evaluate site-level data.

Our analysis was conducted at the end of 2022 and includes our U.S. environmental solutions facilities. It represents 1) the percentage of people of color, and 2) people in low-income households within a 1-kilometer radius of each Republic Services location compared to the state average. An analysis of a 5-kilometer radius of the same locations can be found on our website.

We’re proud to report that the data demonstrate equitable access to our facilities’ benefits across both racial/ethnic and socioeconomic dimensions.

Distribution of Facility Locations
1-KILOMETER RADIUS

**% People of Color vs. State Average**

- **Hauling/Services Center**: 53% of people of color below state average, 47% above.
- **Transfer/TSDF**: 49% below, 51% above.
- **Recycling Processing**: 33% below, 67% above.
- **Landfill/Disposal**: 72% below, 28% above.
- **Total**: 57% below, 43% above.

**Household Income vs. Stage Average**

- **Hauling/Services Center**: 53% below state average, 47% above.
- **Transfer/TSDF**: 57% below, 43% above.
- **Recycling Processing**: 63% below, 37% above.
- **Landfill/Disposal**: 36% below, 64% above.
- **Total**: 50% below, 50% above.

57% of our facilities are in areas with people of color populations below the state average.

43% of our facilities are in areas with people of color populations above the state average.

50% of our facilities are in areas with a low-income populations below the state average.

50% of our facilities are in areas with a low-income populations above the state average.

Facility, ethnic and socioeconomic data is as of September 2022.
Our Processes

Infographics that illustrate and explain our sustainable operations.
Circular Economy

The materials we collect from residential, commercial and industrial waste streams feed into numerous circular systems. Here are some examples.

**COLLECTION**

**USE**

**PRODUCTION**

**DISPOSAL**: We work with partners to recover edible food and distribute it to those in need.

**REUSE**: We collect food waste for animal feed.

**RECYCLING**: Sorted materials are made available for use in sustainable packaging and other items. Landfill gas is captured to create renewable power and fuel. Our composting services convert organic materials into soil amendment.

**ORGANICS**: We pre-process commercial food waste to make renewable natural gas.
Recycling Operations

Today, 32% of municipal solid waste is recycled nationally, according to the U.S. EPA.

Recyclables go to a recycling center to be sorted and returned to mills and manufacturers for reuse.

This facility sorts materials using technology such as optical scanners, magnets and eddy currents.

Collection trucks may take recycling to a transfer station to be consolidated onto larger transfer trucks to reduce miles on the road.

Bales of plastics are transported to a Republic Services Polymer Center for additional processing to enable greater circularity.

Sorted materials are remanufactured into new items – saving resources and energy.

Items made from recycled materials make their way back to retail and businesses to repeat the process.

Aerosols: Our Aerosol Recycling Technology repurposes 100% of the can and its contents, producing recycled metal and renewable fuels.

Glycol: We collect and treat glycol used for aircraft deicing to ensure the airport wastewater remains safe and compliant.

Metals Recovery: Like household metal and aluminum cans, we recycle metals from manufacturing processes, including nickel, copper, cobalt and zinc.

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Organics Operations

Restaurants and other businesses put organic material (e.g. food scraps) into the collection cart or container.

Residents put yard/landscape debris, and in some markets food scraps, in the organics cart for collection.

Collection trucks may take organics to a transfer station to be consolidated onto larger transfer trucks to reduce miles on the road.

Water and air are added to the food and yard waste during the composting process to create nutrient-rich soil amendment.

Compost is used as fertilizer for lawns and farmers’ crops.

Depending on the composition of organic material, it is taken to either a compost site or an anaerobic digestion facility to be recycled.

Anaerobic digestion breaks down food waste in an oxygen-free environment. Biogas is captured and converted into grid electricity or renewable natural gas to be used in fleets like ours.

Farmers send locally grown food back into the market, beginning the cycle.
Municipal Solid Waste Operations

Our fleet of more than 17,000 trucks performs an average of 5 million pickups at businesses and homes each day. Once a collection truck is full, it often goes to a transfer station, where waste is consolidated. This enables more efficient service.

The consolidated waste is transferred to larger trucks for increased efficiency and reduced truck traffic. The larger trucks haul waste from the transfer station to a landfill, where in many cases the waste eventually helps create renewable energy, including electricity and transportation fuel.

According to the EPA, Americans generate 4.9 pounds of waste and recycle or compost 1.6 pounds per person per day.

RNG powers 20% of Republic's fleet.

Landfill gas is converted into renewable electricity, renewable thermal energy or renewable natural gas (RNG). RNG fuels our compressed natural gas fleet.
Leachate is collected through a series of perforated pipes and pumped out of the landfill.

Decomposition of waste produces biogas, which is removed from the landfill through a series of wells.

Decomposition of waste produces biogas, which is removed from the landfill through a series of wells.

Biogas is processed and converted into renewable energy.

Leachate can be pretreated on-site before it is transported or reused at the landfill.

Phytoremediation uses trees or grasses planted atop a landfill to naturally process leachate.

Leachate not treated on-site is sent to a wastewater treatment facility.

Where a landfill gas-to-energy system is not feasible, landfill gas is thermally oxidized through flares, reducing its global warming potential by 96%.
Landfill Gas-to-Energy

We collect more than 70 billion standard cubic feet of landfill gas annually for gas-to-energy projects.

Landfill gas is converted into renewable natural gas (RNG) and fed into the natural gas pipeline. RNG fuels our compressed natural gas fleet.

RNG produces up to 70% fewer emissions than diesel.

RNG powers 20% of Republic’s fleet.

Landfill gas is converted into electricity and distributed to the power grid.

Landfill gas powers boilers that make thermal energy.
Industrial Treatment & Disposal

Industrial & Hazardous Waste
Industrial waste customers, who include manufacturers, retailers and governments, can have special disposal needs for some of their waste. Our treatment and disposal facilities safely handle industrial and hazardous waste, which undergoes any required treatment and multiple quality control checks before final disposal.

Waste Reception
Waste is delivered in bulk via roll-off containers, tanks, railcars or trucks.

Incoming Waste Analysis
Waste is analyzed in the lab to ensure it aligns with the customer’s waste profile. Non-conforming waste is rejected.

If waste requires treatment before disposal, a treatment recipe is developed in the lab.

Waste Storage
Drums of waste are moved in batches for treatment and disposal.

Some waste does not require additional treatment before disposal.

Blending
Industrial or hazardous waste is blended with chemical reagents according to the treatment recipe developed in the lab. This changes its physical characteristics, stabilizing the waste for disposal.

Stabilization Prior to Disposal
A final quality control check is performed to ensure the waste meets the physical characteristics required for landfill placement.

The treated waste is placed into a highly engineered disposal cell and covered. The cell is capped with several layers of clay and a membrane to keep water out.

Environmental Monitoring
The coordinates of each waste deposit are mapped so that the waste can be located in the future if needed. Observation wells allow for ongoing groundwater monitoring.
Exploration & Production Services

We provide on-site treatment, waste removal, hydro-excavation, pit remediation, tank cleaning and equipment rental.

Byproducts of oil well development are collected or brought to our treatment facility.

Separation equipment extracts larger particles from oil- and water-based muds. This process removes rocks, dirt and other solids.

Heat and centrifuge processes separate smaller solids from liquids.

Liquids go to a separation tank farm. Oil separates from water, floating to the top of the tank.

Salts are brought to a lined specialized cell at the landfill.

170X barrels of oil are recovered and sold annually.

Water is returned to salt water disposal wells.
Learn more about our sustainability work through our GRI, SASB, TCFD and other reports at RepublicServices.com/Sustainability/Reporting

For information on how Republic Services can help you achieve your sustainability goals, reach out to Sustainability@RepublicServices.com

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