Republic Services is proud to present our 2020 Sustainability Report

Our company has long been a leader in environmental services and sustainability. We introduced our Elements of Sustainability, the foundation of our sustainability platform, in 2014. Our first sustainability goals were achieved in 2018, and in 2019 we announced a set of ambitious 2030 goals. These include the industry’s first greenhouse gas reduction goal approved by the Science Based Targets initiative (SBTi).

Republic continued our industry-leading sustainability practices in 2020 with the release of our inaugural report aligned with the Task Force on Climate-related Financial Disclosures. It is our industry’s first comprehensive TCFD reporting and identifies our climate-related risks and opportunities.

Our commitment to transparency and disclosure continues with this sustainability report, which tracks our progress toward our 2030 goals. We've enhanced our approach to climate leadership and invite you to explore our path to a low-carbon future.

DISCLOSURE REGARDING 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, 2020, 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

## WHO WE ARE

Message from our President and CEO ........................................... 05
Our 2030 Goals ........................................................................... 06
About Us .................................................................................... 07
Awards ......................................................................................... 08
Facts & Figures .......................................................................... 08
Committed to Serve ................................................................. 10
Social & Environmental Justice .................................................. 11

## OUR APPROACH TO SUSTAINABILITY

Elements of Sustainability ......................................................... 13
Our Approach ............................................................................. 14
Governance ................................................................................... 15

Safety ......................................................................................... 17

Human Capital ........................................................................... 23

Climate Leadership .................................................................... 29

Communities ............................................................................. 40

Appendix .................................................................................... 46
Who We Are

As a leader in the environmental services industry, we are committed to delivering services and solutions for a more sustainable world.
MESSAGE FROM OUR PRESIDENT AND CEO

A Commitment to Our Customers, Our Communities and Our Team

History will remember 2020 for the COVID-19 pandemic and society’s calls for social justice and equal opportunity for people of all races. In addition to these challenges, what I’ll remember is the relentless commitment of Republic Services’ 35,000 team members: a commitment demonstrated to our customers, our communities and our team.

I am tremendously proud of the efforts of all of our employees throughout 2020. Together, they helped drive the social and environmental results highlighted in this report and exemplified what it means to be essential service providers.

Elements of Sustainability

Republic is a leader in the environmental services industry, and we’re dedicated to being a leader in providing sustainable solutions for customers across our operations. That commitment begins with our Elements of Sustainability, which are deeply integrated into our business and anchor our ambitious 2030 sustainability goals.

We introduced our sustainability platform in 2014, and this year it’s evolved to reflect the intensity of our focus. Our People element has expanded into Human Capital, and we’ve aligned our three climate-related goals under a new Climate Leadership element.

I’m pleased to report that we made positive strides toward our climate goals in 2020: We reduced our operational greenhouse gas emissions by 5 percent, and we increased our recovery of key materials to support the circular economy. New renewable energy projects are scheduled to come online in 2021, which will beneficially reuse more biogas.

For our customers, our communities and our team, we’re committed to delivering services and environmental solutions for a more sustainable world.

I’d like to highlight some key accomplishments in all four elements over the past year:

**SAFETY** – Safety drives every decision we make. Amid a global pandemic, 2020 was our safest year on record. In fact, our team recorded an extraordinary 21 percent reduction in safety incidents during this time while operating uninterrupted. We emphasize safety in everything we do – from our drivers’ morning safety huddles to hours of training to seasonal safety initiatives. I am grateful to our 28,000 frontline workers for their outstanding safety performance during the past year.

**HUMAN CAPITAL** – We remain focused on being the place where the best people come to work and can achieve their goals. We are making steady progress on employee engagement through talent programs, leadership development and driving an even more inclusive culture. We are proud of our highly diverse workforce, and we have created even more opportunities for open and authentic conversations among our teams. Every voice matters, and by better understanding our employees’ perspectives we continue to support our team members effectively.

**CLIMATE LEADERSHIP** – We play a vital role in keeping our communities clean and making the planet a better place for future generations. To do that, we’ve made a commitment to fleet electrification, and in 2020, our first electric collection truck pilot hit the road. A zero-emissions fleet is essential to achieving our greenhouse gas reduction goal, and is just one of the ways we’re working to embed sustainability in all areas of our business.

**COMMUNITIES** – Through the Republic Services Charitable Foundation, we contributed $5 million toward neighborhood revitalization in the past year, including $3 million as part of our Committed to Serve initiative to support small businesses that have struggled amid the pandemic. These grants are funding improvements to more than 135 locally owned businesses in 29 of our markets across the country.

Our Path Forward

As we manage our Elements of Sustainability, we’ve enhanced our focus on environmental, social and corporate governance issues to drive value for all stakeholders.

We continue to make steady progress toward our 2030 goals and are excited about innovations and technologies under development that will help accelerate our impact.

We also recognize that we are uniquely positioned to help our customers meet their sustainability goals by providing environmentally responsible solutions. We’re investing in advanced recycling technology and expanding our operations to help customers meet diversion goals. We’ve partnered on renewable energy projects that help customers decarbonize their operations. And there’s much more to come.

Throughout it all, we lead by example, holding ourselves to the highest ethical standards and practices in all that we do. Our company operates within a comprehensive corporate governance framework that sets expectations for professional and personal conduct, defines responsibilities and helps ensure compliance with these responsibilities.

As I begin my tenure as CEO, I feel an urgency to accelerate our transition to a low-carbon economy. It’s imperative for us to reduce emissions and achieve greater circularity with the materials we handle to help preserve the environment now and for future generations. And I am committed to making Republic Services a model for inclusiveness and equal opportunity. We need a broad range of ideas and perspectives to allow our team members to grow and thrive and to best meet our customers’ needs.

Jon Vander Ark
President and Chief Executive Officer

---
Our 2030 Sustainability Goals

**Safety Amplified ›**
Zero employee fatalities

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

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

**Charitable Giving ›**
Positively impact 20 million people by 2030

**Science Based Target ›**
Reduce absolute Scope 1 and 2 greenhouse gas emissions 35% by 2030 (2017 baseline year) [APPROVED BY SBTi](#)

**Circular Economy ›**
Increase recovery and circularity of key materials by 40% on a combined basis by 2030 (2017 baseline year)

**Renewable Energy ›**
Increase beneficial reuse of biogas by 50% by 2030 (2017 baseline year)

---

1. SBTi is a collaboration between CDP, the United Nations Global Compact (UNGC), World Resources Institute (WRI) and the World Wide Fund for Nature (WWF)
Republic Services is a leader in the environmental services industry, providing superior customer service while fostering sustainable solutions for future generations to enjoy a cleaner, safer and healthier world.

Our priorities are straightforward. We are committed to our customers, our communities and our team.

Our Customers
We earn customer loyalty by offering differentiated products and services specifically designed to meet our customers’ needs. We are committed to driving a more customer-centric culture to ensure a superior experience for those we serve.

Our Communities
We play a vital role in keeping our communities clean and safe, making the planet a better place now and for future generations. To do that, we volunteer and invest in our local communities. We’re embedding sustainability in all areas of our business and are working toward a low-carbon future.

Our Team
We put our people first. That’s why we are relentlessly dedicated to maintaining a people-centered and inclusive culture, where individuals from all backgrounds can come to work and have the opportunity to achieve their aspirations and improve their communities.
Awards

We are honored to receive notable third-party recognition for our 2020 sustainability achievements.
**Our Sustainable Operations**

- **16K Trucks**: One of the largest fleets in the nation
- **21% of fleet powered by renewable natural gas**
- **76 Recycling Processing Centers**

**Our Sustainable Operations**

- **6M Tons of materials processed**
- **2.15B Pounds of organics processed**
- **186 Active regenerative landfills**
- **12 Compost facilities**

**Employee Engagement**

- **75 Renewable energy projects**
- **2.1M People positively impacted through charitable giving**
- **85% Employee engagement score**
- **39% Better safety performance than the industry average**
  
  Based on OSHA recordable rates
We Are Committed to Serve

The Republic Services team knows what it means to be essential service providers. With operations in 41 states, we have business continuity plans in place for natural disasters and emergencies – hurricanes, tornadoes, flooding, winter storms, earthquakes and wildfires, among others. So when the COVID-19 pandemic struck in early 2020, we were well-prepared to keep the business running and ensure the continuity of our services.

However, taking care of our customers, our communities and our team during a global pandemic involves going beyond providing vital environmental services. For us, it also means offering support to small businesses struggling to stay afloat. It means investing in our local economies. And it means providing support and appreciation to our team members for their tireless commitment to serve our customers.

In 2020, we launched our Committed to Serve initiative, which was designed to support customers, local communities and our frontline employees. This nearly $35 million initiative included weekly meals from independently owned restaurants in our local communities for employees and their families, gift cards for employees to spend locally, funding for small business revitalization through our charitable foundation and cash awards to our frontline team.

| Contribution to our charitable foundation to support the rebuilding of small businesses | In gift cards to frontline employees to support their local economies |
| $3M | $11M |

| To local restaurants for meals for employees and their families | In awards of $500 to each of our 28,000 frontline employees |
| $6M | $14M |

Small Business Revitalization

Committed to Serve grants through the Republic Services Charitable Foundation are funding revitalization projects at more than 135 small businesses, including minority-owned businesses, in 29 of our markets around the country, providing much-needed support during a challenging time. (Read more on page 44.)

“Republic Services and Rebuilding Together not only invested in us – they worked with us to hire local, small or minority contractors to perform the work. This is what investing in a community should look like.”

JOHNNY G., THE CHEF’S TABLE
Los Angeles, California

“We are the last of the old businesses still going strong on Wabash Avenue. To get a new roof over my processing room is a great improvement and also provides peace of mind.”

STEVE B., BEUTLER MEAT PROCESSING
Lafayette, Indiana

“We feel so blessed by this act of kindness.”

SHARON A., P&S CORNER STORE
Dallas, Texas
Our Commitment to Social Justice

Along with the pandemic, 2020 was marked by calls for social justice and the systemic fair treatment and equal opportunity for people of all races. While inclusion and diversity have always been part of our core values, we took additional proactive measures beginning in 2020 to help ensure that we continue to foster a diverse and fully inclusive environment. We launched a series of conversations called “Let’s Talk.” The first discussion focused on the Black American experience and was hosted in tandem with our Black Employee Network Business Resource Group. With more than 3,000 virtual attendees, this event was a forum for employees to have an open and powerful conversation with a goal of continuing to encourage and equip our team members to have constructive discussions around race.

Subsequent Let’s Talk conversations addressed allyship, work-life balance and the Asian American experience. These discussions build upon our values and business practices designed to ensure we always provide equal employment opportunity and a culture where people of all backgrounds feel safe, respected and appreciated.

Our Business Resource Groups, which include Unidos, Black Employee Network, Women of Republic and V.A.L.O.R. (Veterans, Advocacy, Learning, Outreach and Recruiting), help drive awareness and allyship. Additionally, providing community support through the Republic Services Charitable Foundation helps improve local neighborhoods where our employees live and work.

Our values and business practices are designed to ensure a positive, respectful, inclusive and nondiscriminatory workplace.

A Focus on Environmental Justice

Republic Services provides essential services to the communities where our employees and customers live and work. Being a good neighbor is important to us, and we’re committed to making a positive impact on the health of local communities and the environment.

This commitment is demonstrated through the delivery of our comprehensive and innovative recycling and solid waste solutions. Our operations and processes are designed to support clean communities and minimize the environmental impact of consumer-generated waste.

As the operator of one of the nation’s largest fleets, we’re committed to reducing vehicle emissions through advanced route planning, consolidation of materials, limiting traffic and investing in low- and zero-emissions vehicles.

At our landfills, we manage methane emissions through highly engineered gas systems for collection and control. This includes safe and compliant destruction of landfill gas at flare stations, repurposing landfill gas into renewable energy whenever possible, modern landfill cover technology and active soil management. Our regenerative landfills also return clean water to the watershed through advanced treatment of leachate.

When we site a new facility, the process involves community input and government permitting to ensure we incorporate the needs of all stakeholders. The environmental services industry is one of the most heavily regulated in the U.S., with rigorous internal controls and external government agency oversight to ensure ongoing compliance.

Environmental justice is a priority for our company, and we are proud that our team members and national operating footprint support and reflect the communities we serve.
Our Approach to Sustainability

We play a vital role in making the planet a better place today and for future generations.
We introduced our sustainability platform in 2014, identifying the Elements of Sustainability that are deeply integrated into our environmental services business. This year, while our focus hasn’t changed, our platform is evolving. Our People element has transformed into Human Capital, representing the broad array of efforts that impact the life experience of our employees and their families. We’ve also created a Climate Leadership element, incorporating our previous Operations and Materials Management elements, to reflect our enhanced approach to climate-related risks and opportunities.

Elements of Sustainability

SAFETY
Safety drives every decision we make. Our dedication to safety extends to our customers and into our communities. With the majority 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.

HUMAN CAPITAL
Our employees demonstrate an unwavering commitment to serving our customers, communities and each other. That’s what inspires us to continually strive to maintain a workplace where the best people, from all backgrounds, come to work. We are dedicated to strengthening our inclusive culture and leveraging market-leading employment practices that make us an employer of choice.

CLIMATE LEADERSHIP
We are focused on delivering services and solutions for a more sustainable world. Through landfill and fleet innovation, recycling and circularity of key materials, and renewable energy production, we’re committed to environmentally responsible operations that increase efficiency and help our customers meet their goals.

COMMUNITIES
Investing in the communities where our employees and customers live and work is critical, so our charitable giving platform revolves around neighborhood revitalization and sustainability improvements. We directly support people, places and spaces in need with financial grants, in-kind donations and volunteer time.
**Sustainable Development Goals**

Our Elements of Sustainability – Safety, Human Capital, Climate Leadership and Communities – are the foundation of our sustainability platform and form the basis of our ambitious 2030 sustainability goals.

We introduced the Elements of Sustainability in 2014, and at the time set three time-bound goals related to recycling commodities, energy and fleet, as well as one ongoing safety goal. Those goals were achieved in 2018, and in 2019, we announced new 2030 goals.

Our 2030 goals are aligned with the United Nations’ Sustainable Development Goals (SDGs), which are designed to be a blueprint to achieve a better and more sustainable future for all. The SDGs address the urgent environmental, political and economic challenges facing our world.

**Material Issues and Stakeholder Engagement**

Prior to unveiling our 2030 goals, we updated our material issues assessment. This process helped us center our goals around our most relevant business risks and opportunities and included an analysis of global trends, identification of our business model dependencies and engagement with key stakeholders.

By regularly monitoring our business model, we identify key dependencies, or material issues, necessary to profitably grow our business over the long-term. Our material issues include our employees, our communities and certain aspects of the environment, economy and society, all of which were factored into our goals.

Another important step in crafting our 2030 goals was stakeholder engagement. Between 2017 and 2018, Republic Services reached out to more than 20,000 stakeholders – including customers, suppliers and residents – asking them to evaluate the importance of and our performance on issues related to our Elements of Sustainability.

We will be engaging in a refresh of our material issues assessment in the second half of 2021. Maintaining open dialogues on these issues is crucial as we make progress toward our 2030 goals. We are confident that each of our 2030 sustainability goals has the potential to significantly benefit the environment, society and our customers, while enhancing the foundation of our business for the long-term.
Corporate Governance and Oversight
At Republic Services, we lead by example and hold ourselves to the highest ethical standards and practices in all that we do. Our Code of Ethics is an integral part of our ethics and compliance program and serves as the cornerstone of our commitment to conduct business with the highest ethical and legal standards. Our company operates within a comprehensive corporate governance framework that sets expectations for professional and personal conduct, defines responsibilities and helps ensure compliance with these responsibilities.

We strive to be a market leader in all aspects of our board and governance practices. Our Board of Directors is highly diverse, committed to Board refreshment and led by an independent Board chair. Board committees, led by independent directors, ensure that there is robust oversight of our environmental, human capital and risk profile. We have market standard and shareholder-favorable corporate governance provisions including proxy access, annual election of directors, a majority vote standard and the right to take action by written consent.

Risk Oversight
Our Board of Directors is actively involved in risk oversight, and its structure enables our directors and management team to engage in robust conversations about opportunities and risks relating to environmental, social and governance (ESG) issues. This framework ensures that:

• The risk-management processes designed and implemented by leadership are adapted to the overall corporate strategy.
• Those processes are functioning effectively.
• Management communicates material risks to the Board or the appropriate Board committee.
• Actions are being taken to continue to foster a strong culture of ethics and compliance and risk-adjusted decision-making throughout the organization.

Our Board is made up of 12 directors, all of whom are highly engaged and skilled professionals who recognize that strong corporate governance leads to long-term shareholder value.

DIVERSITY OF DIRECTORS

<table>
<thead>
<tr>
<th>Ethnic Minority</th>
<th>White</th>
<th>Female</th>
<th>Male</th>
</tr>
</thead>
<tbody>
<tr>
<td>25%</td>
<td>75%</td>
<td>33%</td>
<td>67%</td>
</tr>
</tbody>
</table>

INDEPENDENCE OF DIRECTORS

<table>
<thead>
<tr>
<th>Independent</th>
<th>Insider</th>
</tr>
</thead>
<tbody>
<tr>
<td>92%</td>
<td>8%</td>
</tr>
</tbody>
</table>

AWARE Line
Open lines of communication between employees and management are a critical component of our ethics and compliance program. We strive to foster a speak-up culture, grounded in trust and mutual respect, where there is no fear of retaliation for our employees to raise a question, a concern or suspected misconduct. However, if employees are uncomfortable speaking directly to their supervisor or another manager, or wish to remain anonymous, they have the option to contact our confidential AWARE Line (1-866-3-AWARE-4 or 1-866-329-2734). This toll-free number is operated by an independent reporting service and available 24 hours a day, seven days a week.
Sustainability & Corporate Responsibility Committee

The Board is directly involved in overseeing our environmental and sustainability initiatives and conducts a comprehensive review of our sustainability performance on an annual basis. Our commitment to corporate sustainability led to the formation of a dedicated Sustainability & Corporate Responsibility Committee of the Board in 2015. This committee has oversight responsibility over our sustainability performance, our corporate responsibilities, our role as a socially responsible organization and our enterprise risk related to issues including:

- Safety
- Climate change
- Inclusion and diversity
- Employee wellness
- Cyber security
- Corporate reputation
- Charitable giving and community support
- Political contributions

The Committee also oversees our Enterprise Risk Management (ERM) Program, which includes assessment, prioritization and management of risks and opportunities, including those related to climate issues.

Ethics & Compliance

Conducting our business ethically and with integrity is essential to maintaining our position as an industry leader and aligning us for future growth opportunities. All Republic Services employees share a responsibility to protect the company from any conduct that could threaten our reputation or erode the trust placed in us by colleagues, customers, shareholders and communities.

Our Code of Business Ethics & Conduct guides our operations and interactions with all of our stakeholders:

- **Our Employees**: Our employees rely on us to help ensure a positive, inclusive and diverse workplace that is safe and free from discrimination and harassment.
- **Our Shareholders**: Our shareholders rely on us to conduct our business ethically and with integrity to safeguard Republic’s credibility and shareholders’ investment.
- **Our Customers and Suppliers**: Our customers and suppliers rely on us to be fair and honest in all business practices.
- **Our Marketplace**: Our marketplace relies on us to ensure that information disclosed to the public is accurate, and confidential information is protected.
- **Our Competitors**: We must compete with the highest standards of ethical conduct, in compliance with competition laws wherever we do business.
- **Our Government**: We must operate in compliance with federal, state and local laws when working with our government and local municipalities.
- **Our Environment**: Our environment relies on us to protect it and do what’s best for our customers, communities and employees by working toward a more sustainable world.

Sustainability Risk Governance & Management

- Oversee ERM and ESG Program and goals
- Assess risks with respect to business resiliency, strategy and long-term value creation
- Provide output to full board, as appropriate
- Manage risk mitigation plans by function
- Ensure ESG performance, which is incorporated into compensation goals
- Govern ERM Program
- Assess and monitor risks
- Identify, define and prioritize risks and opportunities
- Assign risk owners and oversee mitigation plans
- Disclose ESG risk mitigation plans
- Identify traditional and ESG risks and opportunities
Safety drives every decision we make. With the majority 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.
Safety Amplified

The very nature of our business requires a relentless focus on safety. Our steadfast focus on employee safety remains centered on zero fatalities. In 2020, we experienced two fatalities.

GOAL
Zero employee fatalities

EMPLOYEE FATALITIES

<table>
<thead>
<tr>
<th></th>
<th>2017</th>
<th>2018</th>
<th>2019</th>
<th>2020</th>
<th>2030 GOAL</th>
</tr>
</thead>
<tbody>
<tr>
<td>OSHA Reportable</td>
<td>2</td>
<td>0</td>
<td>2</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>Operating Collection Vehicles</td>
<td>4</td>
<td>1</td>
<td>2</td>
<td>1</td>
<td>0</td>
</tr>
</tbody>
</table>

Incident Reduction

Over the past 10 years, our safety performance (based on OSHA recordable incident rates) has been 39 percent better than industry average. Our TRIR remained steady from 2019 to 2020, at 3.7.

GOAL
Reduce Total Recordable Incident Rate (TRIR) to 2.0 or less by 2030

OSHA TOTAL RECORDABLE INCIDENT RATE

As the operator of one of the largest fleets in the nation, Republic Services is committed to making the roads safer for everyone. Since 2016, we’ve partnered with Together for Safer Roads (TSR), a coalition of global private-sector companies committed to improving roadway safety with a shared vision of decreasing road traffic collisions, injuries and deaths.

In November 2020, TSR and Republic Services, along with other fleet partners, announced a design challenge to improve fleet safety and save lives by developing a Truck of the Future. The project is expected to identify and test both innovative and cost-effective solutions to eliminate large vehicle collisions through improved driver visibility, a leading issue identified by safety experts from some of the world’s largest fleets.
Our commitment to safety starts with our people: employees who demonstrate strong operational know-how, attention to detail, leadership accountability and a consistent focus.

Focus Together
This effort is the very core of our safety program and is designed to help frontline employees eliminate the six most common types of serious incidents.

Lead Together
We provide best-in-class communication channels and advanced training techniques for all frontline supervisors and managers to help them guide their teams.

Partner Together
Staying safe requires involvement by employees at all levels. We’ve increased leadership visits with frontline employees and supervisors to support each division’s safety goals.

Innovate Together
We employ the latest technologies in our fleet, including automation, rear cameras, in-cab backup alarms and event recording systems to help keep people safe.

Analyze Together
We analyze real-time data, including roadway awareness and data mapping, to make short- and long-term decisions and identify opportunities for improvement.

Celebrate Together
Highlighting our employees’ relentless commitment to safety drives engagement, brings well-earned recognition to our teams and reinforces best practices.

Our Safety Amplified Platform

Safety Amplified provides training, tools and resources to keep our employees and the communities they serve safe. Our continued focus on the six key areas of this program help ensure that safety is embedded into everything we do as we work toward achieving our goals of zero employee fatalities and reducing our OSHA Total Recordable Incident Rate.

We reinforce our company’s safety culture through comprehensive safety management programs, which include our foundational safety training program; new driver training programs; absolutes, such as seat belt usage and lock out/tag out, and standards, which are our operational best practices; as well as many other programs.

Our commitment to safety starts with our people: employees who demonstrate strong operational know-how, attention to detail, leadership accountability and a consistent focus.
Our Safest Year on Record

Keeping our employees, customers and communities safe is part of everything we do, so we are proud to report that 2020 was our safest year on record. This is an exceptional achievement at any time, but especially noteworthy in a year that brought so many challenges. As essential service providers, our frontline employees remained on the job throughout 2020 while many other aspects of daily life shut down. Their hard work and passion for taking care of each other resulted in higher engagement and improved attendance during this time.

Now that we’ve raised the bar, we’re committed to improving our safety performance even further in the years to come.

Safe May Challenge

A true commitment to safety takes everyone working together to achieve a safe, incident-free workplace. It’s embedded in all that we do, yet we are continually pushing ourselves to call attention to its importance in different ways. Last year, we launched the Safe May Challenge, featuring a full month of engaging activities. From handing out care packages for drivers to posting banners at our facilities, we drove home the importance of safety in a variety of ways for our field teams. The challenge also provided structure for leaders to engage in guided conversations and interactive activities on a range of workplace safety topics – including seatbelt usage and proper lifting techniques, among others.

Notably, May was our safest month in 2020, and we’re applying some of our most successful strategies at other times of the year so we can replicate that outstanding performance.

Amid the challenges of the pandemic, our teams recorded 21 percent fewer overall safety incidents than in 2019, an outstanding accomplishment that exemplifies our commitment to the communities we serve.

“I take my responsibility of leading safety very seriously and feel the weight of being part of a team that provides close to 24/7 service. I am holding myself and my team accountable to do everything in our power and span of influence to get our employees home safely each night.”

GENERAL MANAGER, CODY H.
Environmental Services, Houston, Texas

“The Focus Together program has definitely made us stronger together! We have 100% safety buy-in from the entire Business Unit. This is a result of continuous engagement with the team, recognition, monthly review of the safety results and all leaders having an open-door policy.”

GENERAL MANAGER, JOCELYN K.
Crestwood, Illinois

“Although we had a great year, that can change if we don’t stay focused. I look forward to 2021 and keeping the focus on safety to maintain another perfect year.”

GENERAL MANAGER, DAVID H.
North Phoenix, Arizona

21% FEWER INCIDENTS OVERALL
Driver and Operator of the Year

In our business, there is no greater honor than to be recognized for a career dedicated to safety. Each year, the National Waste and Recycling Association (NWRA) recognizes drivers and operators who uphold the field of recycling and waste collection as an honorable occupation and consistently conduct themselves, the vehicles and the equipment they operate in a safe and responsible manner.

Three Republic employees were honored with Driver of the Year or Operator of the Year awards in 2020:

Since 2009, Republic Services drivers have won 70 percent of NWRA’s Driver of the Year awards.

Celebrating Together

Republic Services’ internal recognition program celebrates team members who embrace our culture of safety. In 2020, we honored more than 19,000 employees for outstanding safety performance.

15K Employees Dedicated to Safety (DTS)
Employees achieve no preventable crashes/ injuries and no safety warning letters for the year.

4K Employees Dedicated to Excellence (DTE)
Employees meet the DTS program requirements in addition to perfect attendance.

22 Employees 15 years accident-free
Employees meet all requirements of the DTS and DTE programs for 15 consecutive years.

NATIONAL COMMERCIAL DRIVER OF THE YEAR
Tommy Garcia
Phoenix, Arizona

NATIONAL INDUSTRIAL DRIVER OF THE YEAR
Tim Fields
Church Hill, Tennessee

OPERATOR OF THE YEAR
Keith Dunn
Sorrento, Louisiana
Staying Safe Through the Pandemic

The COVID-19 pandemic quickly changed nearly every aspect of daily life, and Republic’s commitment to keep our customers, our communities and our team safe took on even greater urgency. As an essential service provider, Republic Services has contingency plans in place to ensure the continuity of our operations, and our team quickly went to work to address the unprecedented challenges brought on by the pandemic. Throughout 2020, our priorities remained unchanged: Put our people first, keep our operations running, and take care of our customers.

Our People
To keep our business operational so that we could continue to serve our customers, we first had to take care of the health and safety of our 35,000 employees. That included:

- Distributing hundreds of thousands of PPE masks and sanitation supplies
- Instituting a work-from-home plan for office employees
- Instructing on hygiene best-practices
- Communicating frequent updates about the virus and the pandemic
- Adjusting procedures and practices to allow for social distancing

Our Operations
Business continuity meant making changes to ensure our facilities and equipment were clean and safe for our 28,000 frontline employees working in the field. Those measures included:

- Enlisting an industrial hygienist to evaluate our facilities
- Increasing and enhancing cleaning schedules at all operating locations
- Conducting deep cleaning and disinfection after COVID-19 exposure
- Installing protective plastic barriers in our recycling facilities
- Moving break areas outside where possible

Our Customers
We collect not only from homes, but from critical customers like hospitals, airports and grocery stores that require our services to remain operational. We wanted customers to know they could count on Republic Services, and offered support to those that were struggling, by:

- Adjusting service early in the pandemic to manage a surge in household waste and recycling
- Providing regular updates about service or schedule changes
- Ensuring continuous coverage of critical customers
- Donating surplus PPE to customers in need
- Contributing $3 million toward small business revitalization
Our employees demonstrate an unwavering commitment to serving our customers, communities and each other. That's what inspires us to continually strive to maintain a workplace where the best people, from all backgrounds, come to work.
Engaged Workforce

Research shows that teams with a highly engaged workforce experiences less turnover and fewer safety incidents. Engaged employees also deliver a better customer experience and are more productive, which is directly tied to the success of our business.¹

**GOAL**

Achieve and maintain employee engagement scores at or above 88 percent by 2030²

**REPUBLIC EMPLOYEE ENGAGEMENT SCORES**

<table>
<thead>
<tr>
<th>Year</th>
<th>Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>2017</td>
<td>85%</td>
</tr>
<tr>
<td>2018</td>
<td>86%</td>
</tr>
<tr>
<td>2019</td>
<td>86%</td>
</tr>
<tr>
<td>2020</td>
<td>85%</td>
</tr>
<tr>
<td>2030 GOAL</td>
<td>88%</td>
</tr>
</tbody>
</table>

Despite the challenges of 2020, we maintained extraordinarily high levels of engagement and continued to outperform industry benchmarks. We remain steadfast on our goal of achieving and maintaining an engagement score at or above 88 percent by 2030.

**MOSAIC: Our Mission Of Supporting An Inclusive Culture**

The name MOSAIC represents each of our individual strengths and capabilities coming together to create a culture with the best people from all backgrounds, just as individual tiles come together to form one picture.

This mission is realized through our efforts to maintain a workforce that represents the diversity of the communities we serve, and by ensuring that we provide an environment where all people feel safe, respected, welcomed, heard and valued.

The MOSAIC Council serves as the compass of this mission. Made up of leaders from across the company, this diverse group guides, sponsors and supports Republic’s inclusion and diversity efforts. They, like all of us, have unique stories and sets of experiences that make them who they are, which contribute to their passion for and commitment to our company’s mission of supporting an inclusive culture. The Council is a steward for our mission and helps advance our efforts toward inclusion and diversity across the company.

---

¹ Glint research from 2017-2019
² Traditional engagement score of 88% reflects the top 5% of all Glint customers.
Improving the Employee Experience

At the core of our business is our people, which is why Republic Services is committed to a workplace culture that highly values employee engagement and meaningful employment practices that make us an employer of choice.

Republic Services has long measured employee engagement, and our scores consistently outperform industry and overall benchmarks. Despite the challenges of 2020, we maintained extraordinarily high levels of engagement. Our score of 85 percent is 9 points higher than the U.S. average and ranks us in the top 20 percent of companies for employee engagement. Data from our own Business Units shows that the most engaged teams are safer, more productive and have less turnover. That’s why we want our leaders to maintain a culture where people are free to speak up, and we want employees to tell us how things are going.

Simply put, our employees’ voice matters. To better capture feedback about our employees’ overall experience at Republic, we transitioned in 2020 from an “engagement” survey to an “experience” survey. While we continue to assess employee sentiment on topics such as pride for the company, job satisfaction and intention to stay, this shift allows us to expand beyond traditional benchmark questions to dig deeper into focus areas like recognition, ethics and inclusion. We’ve also increased the frequency from annual to twice-a-year surveys, allowing us to better keep a finger on the pulse of our employee experience and creating greater opportunity to take action.

Creating Opportunities

We’re proud of the exceptionally high engagement among all of our hourly employees and among drivers, specifically. As part of our commitment to meaningful employment practices that make us an employer of choice, Republic provides a total rewards package featuring competitive wages and comprehensive benefits, and offers frontline employees guidance and tools to manage their overall well-being – physical, mental, financial, emotional and social. This is an important way in which we support the communities we serve through employment opportunities that provide a stable career with training, upskilling and opportunity for advancement.

This new approach measures engagement as an average instead of a favorability score. This is a more stable measurement and more representative of the organization as a whole. It also provides more data that we can use to get to the heart of our employees’ feedback. Though we’ve changed survey formats, we haven’t changed the way we’re measuring engagement, and we continue to strive toward our goal of 88 percent employee engagement.

The early results are very promising. In 2020, 92 percent of our employees participated in the survey process, an all-time-high and well above the 84 percent participation rate in 2019.

Great Place to Work

Republic Services was certified as a Great Place to Work® for 2020 – an achievement that’s determined by employee feedback collected through a survey conducted by Great Place to Work. During the certification process, 81 percent of employees ranked Republic as a great place to work. That compares to 59 percent at a typical U.S.-based company. This is the fourth consecutive year Republic Services has been recognized, and we continue to be the only environmental services provider with the certification.

As an employer of choice, Republic Services is dedicated to strengthening our inclusive culture. We’ve taken bold 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 are proud that our frontline workforce closely represents the demographics of the areas we serve, and we are aggressively pursuing improvement in representation of diverse groups across all levels of the company.

We continue to diversify our leadership ranks as well, and in 2020, we increased the share of women in top management positions from 17 percent in 2019 to 30 percent. Across all management levels of the company, women make up 23 percent of managers, while 26 percent of managers are ethnically diverse.

We strive to support employees who share commonalities and to provide opportunities for courageous and authentic conversations. One way we’re bringing our people together is through our Business Resource Groups (BRGs). These networks are an important part of creating an inclusive culture and a sense of belonging for our employees. The BRGs help their members thrive personally and professionally, and are committed to driving business impact.

### Unidos

Republic’s newest BRG is Unidos, which means United in Spanish, and it supports our community of Latinx employees. It’s designed to inspire inclusion and cross-cultural engagement throughout our organization. Unidos is a place where members can connect, grow, advance and share their personal and professional journeys.

### Black Employee Network

Our Black Employee Network offers professional development, increases cultural awareness, provides mentorship opportunities, and helps advance the recruitment and retention of talented Black employees. In 2020, the network helped facilitate a candid discussion to generate understanding around the topics of inclusion and diversity for our colleagues.

### Women of Republic

Women of Republic is focused on maintaining an inclusive culture that attracts, retains, develops and values female talent throughout the organization. In 2020, we also partnered with the Network of Executive Women and other female leadership organizations to provide additional learning and development opportunities to our Women of Republic members.

### V.A.L.O.R.

Approximately 7 percent of Republic’s workforce consists of veterans. V.A.L.O.R. (Veterans, Advocacy, Learning, Outreach and Recruiting) is aimed at attracting, hiring and retaining veterans, military spouses and active service members. In 2020, we participated in 10 recruiting events with a focus on attracting military spouses and sourcing for our leadership development programs.

### Republic’s Workforce in 2020

<table>
<thead>
<tr>
<th>ETHNICITY</th>
<th>White</th>
<th>Ethnic Minority</th>
</tr>
</thead>
<tbody>
<tr>
<td>53%</td>
<td>47%</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>AGE</th>
<th>&lt;30 years old</th>
<th>30-50 years old</th>
<th>&gt;50 years old</th>
</tr>
</thead>
<tbody>
<tr>
<td>40%</td>
<td>49%</td>
<td>11%</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>GENDER</th>
<th>Female Share of Total Workforce</th>
<th>19%*</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Women in All Management Positions¹</td>
<td>23%*</td>
</tr>
<tr>
<td></td>
<td>Women in Junior Management Positions²</td>
<td>22%*</td>
</tr>
<tr>
<td></td>
<td>Women in Top Management Positions³</td>
<td>30%*</td>
</tr>
<tr>
<td></td>
<td>Women on Board of Directors</td>
<td>33%</td>
</tr>
</tbody>
</table>

*An increase over 2019
1. As a % total management workforce
2. As a % total of junior management positions
3. As a % total of top management positions, maximum two levels away from the CEO or a comparable position
Inclusion Focus

When we maintain an inclusive workplace, all employees feel welcome and free to be their true, best selves. To encourage conversation around inclusion in our Business Units around the country, we delivered “Meeting in a Box” kits to our field leaders.

The kits included an outline of a 20-minute meeting with the theme, “It only takes one person to make someone feel included.” To help leaders be successful, they were provided with an introduction to the subject, a video to share and talking points for discussion after the video.

Suggested action items for employees included: Inviting a new colleague to lunch, asking a coworker for their opinion or talking about something other than work during breaks.

By stepping outside of our comfort zones, we may be helping a colleague feel more comfortable. All of us play a role in maintaining an environment where everyone feels like they belong.

Developing Leaders of the Future

Attracting, hiring and developing the leaders of tomorrow is a vital component of our human capital strategy. Rotational training and development programs, including our General Manager Acceleration Program (GMAP) and Leadership Trainee Program, help us advance a diverse and talented group of individuals throughout the company. Sponsored by our Executive Leadership team, these programs provide visibility and support for the career advancement of our high-potential employees. To date, more than 40 leaders have graduated into leadership positions, with over 90 percent retention of participants.

In addition, programs like our new-hire onboarding and new leader assimilation reinforce our company values, expectations and business approach. Targeted development experiences support the growth of people in key roles, including Driver Training, Technician Training, Supervisor Training, Sales Acceleration, General Manager Onboarding and more. We believe these programs provide the fundamental skills necessary to be successful across many roles.

“What is so great about the GMAP program and the rotational aspect of it is, rather than rising up through the company in one function, you’re getting a taste of all the functions and how they work together. The goal is collaboration, and the program sets it up nicely for that perspective as a leader where you see how everything matters in delivering on our service promise every day. Then, becoming a new GM during a global pandemic, everyone opened up a little bit more quickly and got a little more vulnerable with each other.”

GENERAL MANAGER, JEAN M.
Tucson, Arizona | GMAP Class of 2018

“Seeing a lot of facilities and meeting a lot of people in the company through the GMAP program gave me a really good idea of what ‘good’ looks like – how to champion our culture and what the Republic values really are. I get excited about being able to talk to our people, our frontline workers, the people who are doing the job every day, and I can do that here at Republic. That’s the exciting part to me, being able to exceed expectations, help our employees have long-term jobs and being able to help the community.”

GENERAL MANAGER, JAY O.
Seattle, Washington | GMAP Class of 2019
Our Response to the COVID-19 Pandemic

NEW WAYS OF WORKING IN THE PANDEMIC

We can only provide vital essential services to our customers and communities if our employees are healthy and safe. In 2020, this meant the majority of our office employees performed their duties remotely. Notably, we transitioned more than 1,200 customer services employees to a remote work environment in only three days, while maintaining exceptional customer service.

SOCIAL DISTANCING
Changed the way we work to ensure proper social distancing, including outdoor huddles, rescheduled events and virtual meetings.

WORKING REMOTELY
Leveraged our tools and technology to enable office employees to work from home.

INCOME SECURITY
Alleviated concerns about pay by offering 10 additional days of PTO for any employee diagnosed with or required to quarantine due to exposure to COVID-19 as well as guaranteed a 30-hour workweek.

ENHANCING BENEFITS
Adjusted our healthcare plans to cover copays and medical expenses related to COVID-19 treatment along with virtual doctor visits, early prescription refills and enhanced EAP support for mental health and wellness.
Climate Leadership

Through landfill and fleet innovation, recycling and circularity of key materials, and renewable energy production, we are committed to environmentally responsible operations that increase efficiency and help our customers meet their goals.
Science Based Target

Landfill methane emissions, vehicle and equipment emissions, and building electricity all contribute to climate change. In 2020, we realized a 5 percent reduction in our overall greenhouse gas (GHG) emissions from the previous year, including a 7.5 percent reduction in fleet emissions.

**GOAL**
Reduce absolute Scope 1 and 2 greenhouse gas emissions 35% by 2030 (2017 baseline year)

**SCOPE 1 AND 2 GREENHOUSE GAS EMISSIONS**

<table>
<thead>
<tr>
<th>Year</th>
<th>Emission Category</th>
<th>2017</th>
<th>2018</th>
<th>2019</th>
<th>2020</th>
<th>2030 GOAL</th>
</tr>
</thead>
<tbody>
<tr>
<td>Landfills</td>
<td>13,773,367</td>
<td>13,500,035</td>
<td>14,186,701</td>
<td>13,453,373</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Fleet</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>8,952,151</td>
<td></td>
</tr>
<tr>
<td>Buildings</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Building Sustainability

Scope 2 emissions are defined as indirect GHG emissions associated with the purchase of electricity, steam, heat or cooling. Though buildings make up only a fraction of our overall carbon footprint, we are committed to reducing emissions by following environmentally responsible practices in their planning and operation. Following the U.S. Green Building Council’s LEED standards, we utilize both passive and active sustainable design principles and employ innovative technologies that require less energy, conserve water, and increase environmental and operational efficiencies.
Circular Economy

We increased the recovery and resale of targeted commodities (cardboard, metals, plastics, organics, biogas and oil) to more than 4.6 million tons, a notable achievement in a year in which the COVID-19 pandemic affected both the volume and the mix of materials received.

**GOAL**
Increase recovery and circularity of key materials by 40% on a combined basis by 2030 (2017 baseline year)

Renewable Energy

We experienced a slight decrease year-over-year in the beneficial reuse of landfill biogas due to older renewable energy projects reaching end of life and replacement projects not yet online. In 2020, we had four landfill gas-to-energy (LFGTE) projects begin operations, with more under development for 2021.

**GOAL**
Increase beneficial reuse of biogas by 50% by 2030 (2017 baseline year)

We Have Only One Planet to Call Home

To protect our planet for future generations, Republic Services is dedicated to preserving natural resources by recycling key materials from the waste stream. We continue to invest in the recovery and circularity of materials with the highest environmental benefit at our 76 state-of-the-art recycling facilities across the country. The size, scope and scale of our operations enable us to leverage advanced technology and operational practices for maximum efficiency. The result? Sustainable solutions for our customers, significantly reduced greenhouse gas emissions and the production of high-quality commodities that are returned to the marketplace for reuse.
Our Path to a Low-Carbon Future

As the world transitions to a low-carbon economy, Republic Services recognizes the importance of tracking progress toward our 2030 emissions reduction goal, so we’ve established an interim target. By 2025, we anticipate reducing our Scope 1 and 2 emissions by 10 percent. We expect innovation, technology, and better modeling and measurement in coming years to accelerate our progress toward our goal of a 35 percent reduction in Scope 1 and 2 emissions by 2030. As is the case with other infrastructure investments and R&D projects, these emissions reductions will take time, and we expect the vast majority of reductions to be realized in the second half of the decade.

Examples of emissions measurement and reduction measures we’re exploring:

- Non-point source measurement tools, such as satellite
- Enhanced real-time fleet routing systems
- Transitioning to fleet electrification

Tracking Avoided Emissions

Many of our municipal and commercial customers are striving to be “net zero” in their greenhouse gas (GHG) emissions. The environmental services industry is already there, according to a pair of commissioned reports in California¹ and Washington². This research suggests that recycling, composting and production of renewable energy from waste more than offset direct GHG emissions from landfills, facilities, fuel and energy use. In California, the report estimated that the industry avoided 3.7 times more GHGs than were emitted, while in Washington, the estimate was 2.8 times. While the science of net zero is still evolving, environmental services will play a vital role in decarbonization.


In 2020, we released our inaugural report aligned with the recommendations of the Task Force on Climate-related Financial Disclosures (TCFD), providing added transparency for investors. We are the first in our industry to issue a comprehensive TCFD report identifying our climate-related risks and opportunities, reflecting our commitment to environmental leadership and sustainability.
When organic waste decomposes in the low-oxygen environment of a landfill, it creates methane. According to the EPA, on a carbon equivalent basis, methane makes up 10 percent of all U.S. greenhouse gas emissions. Of that, landfills are estimated to contribute 17 percent, meaning landfills make up less than 2 percent of all U.S. greenhouse gas (GHG) emissions.

To manage landfill emissions, we maximize the amount of biogas collected at each site. Our priority is beneficial reuse as renewable energy, which is addressed in our Renewable Energy goal (see page 31). Where biogas is not beneficially reused, we thermally destruct the methane content, reducing its global warming potential by 96 percent. By safely maximizing biogas collection, we minimize gas escaping as fugitive emissions.

Landfill emissions make up nearly 90 percent of the Scope 1 and 2 greenhouse gas emissions addressed by our Science Based Target goal. Reducing them is key to meeting our goal and to addressing our climate-related impacts. However, the challenge for all landfill owners and operators lies in quantifying fugitive emissions, which currently is done through modeling as opposed to direct measurement.

The current model used in the U.S. for measuring and calculating the contribution of landfills to the overall greenhouse gas footprint is, unfortunately, not well-suited for tracking the progress of reduced emissions from individual landfills. The current model relies on limited input parameters to calculate fugitive emissions, most notably the type of cover systems deployed. This assumes default uncollected gas as a percentage of collected gas by cover type. In other words, when more gas is collected, calculated fugitive emissions increase, which is inconsistent with high-performing collection systems.

In 2020, we began exploring alternative approaches that would be more representative of our landfill emissions, including modeling that expands the range of assessments under the current model. We also are partnering with third parties including the Environmental Research & Education Foundation, which has issued an RFP for research related to the management of greenhouse gas emissions from landfills. We continue to use the current landfill emissions methodology while we explore options to enable more representative measurement.
Driving Toward Zero Emissions

The future of transportation is electric. Republic Services is proud to be leading the industry toward a more innovative and sustainable future with a commitment to fleet electrification.

This technology promises to provide meaningful benefits for our customers, the communities we serve, our employees and the environment. A zero-emissions fleet is essential to achieving our Science Based Target goal, which commits to reducing our Scope 1 and 2 greenhouse gas emissions 35 percent by 2030.

Our industry in particular is well-suited to take advantage of electrification: Collection trucks drive short and consistent distances, make hundreds of stops throughout the day, and return to a base where they can recharge overnight. They also promise a superior customer experience, with cleaner and quieter operations in the neighborhoods we serve.

Republic Services achieved a significant fleet electrification milestone in 2020 with the delivery of our first fully electric collection truck pilot. Developed in partnership with Mack, the electric truck pilot began trials on residential collection routes in North Carolina to test range, functionality and payload capacity. We are actively working with multiple suppliers, including Peterbilt and Mack, to transition away from fossil fuel vehicles, and expect additional electric trucks to begin service in 2021.

“Our destination is clear – electrification is the future. Customers are excited about its potential, it’s a much quieter experience for our drivers and communities, and most importantly, it significantly reduces emissions.”

JON VANDER ARK, CEO

We seek partnerships with forward-looking companies that will further accelerate our electrification goals in different ways. In 2020, we made a minority investment in, and entered into a strategic alliance with, battery technology company Romeo Power to further explore electric solutions. Electrification isn’t limited to our trucks on the road. On the heavy equipment side, we’ve begun evaluating electric-drive bulldozers at our landfills, which offer significantly improved fuel economy. In the coming year, we’ll also be testing electric forklifts at our recycling centers.

Republic Services’ leadership in fleet innovation reduces emissions, drives profitable growth, enhances customer loyalty and creates long-term shareholder value. As the operator of one of the nation’s largest vocational fleets, we’re committed to reducing carbon emissions in the communities we serve. We see electrification as the future and expect it to be the preferred means of powering the next generation of collection trucks and equipment.

Bridging the Path with RNG

We’ve long been a leader in alternative fuel vehicles, beginning with Compressed Natural Gas (CNG) as a bridge until electric vehicles are commercially viable. In 2020, we continued to replace aging diesel trucks with more sustainable alternatives, adding 159 natural gas-powered collection trucks. Today, our natural gas-powered trucks number more than 3,300 vehicles, or 21 percent of our total fleet.

CNG collection trucks produce far fewer carbon emissions than their diesel counterparts. The use of Renewable Natural Gas (RNG) in these vehicles makes them even more environmentally responsible. In 2020, we increased our use of RNG to fuel nearly 100 percent of our natural gas trucks. RNG is produced by recovering biogas from organic waste, such as in our landfills, and replaces the use of fossil fuels. Its use can reduce greenhouse gas emissions by as much as 70 percent over diesel!

To read how we’re creating RNG and other renewable energy at our landfills, see pages 38-39 and our Landfill Gas-to-Energy infographic on page 50.

7.5% Reduction in fleet emissions in 2020 from our use of RNG

Circularity Through Recycling Innovation

Around the world, developed nations are prioritizing the Circular Economy. Republic Services is as well. We contribute to circularity in many ways throughout our operations (for a detailed look, see our Circular Economy infographic on page 53).

This extends to the majority of the recyclable materials we process and make available to the marketplace: A cardboard box is recycled into another box; mixed paper becomes recycled paper; an aluminum can becomes another can. The notable exception to circularity in our commodities portfolio is plastics.

Frequently cited EPA data states that only 9 percent of plastics are recycled\(^1\) – but that doesn’t tell the full story of plastics recycling. Many plastics are used in durable applications, such as automotive bumpers or PVC pipes, that never enter the recycling stream. Still, consumers can do better. It’s estimated that only 30 percent of single-use plastic beverage containers are recycled\(^1\), a number we believe is far too low.

In 2020, plastics made up only 7 percent of the commodities Republic sold, and 91 percent of those plastics had strong domestic end markets.

Collected household items like beverage containers, milk jugs, shampoo bottles and margarine tubs are all recycled into new products.

But a plastic water bottle is more likely to be recycled into carpet or clothing instead of another bottle. That’s because it’s more expensive to produce a food-grade recycled resin than it is to produce that same resin from natural gas, an abundant and heavily subsidized resource. However, we are seeing encouraging moves:

- Brands have pledged to use more recycled content in packaging.
- States are passing legislation mandating minimum recycled content.

Collectively, these steps will create economic value for recycled plastic – which will unlock investment in infrastructure, drive innovation and provide confidence for our customers that the materials entrusted to us are being recycled.

We continue to work toward innovative solutions to help us along the path to greater plastics circularity and, in turn, help our customers meet their sustainability goals.

Legislation: Minimum Recycled Content

Most recycling legislation in the U.S. for the last three decades has focused on the supply of recycled materials, usually through diversion goals. Now, legislation in states including California and Washington is starting to address demand for recycled material, through mandated minimum post-consumer content.

**California:** In September 2020, California’s governor signed the nation’s first law establishing recycled content standards in single-use beverage containers. The law requires 15 percent post-consumer content by 2022, 25 percent by 2025 and 50 percent by 2030.

**Washington:** A new law requires recycled content in plastic beverage containers, trash bags and bottles for household products. Like California’s law, Washington’s measure sets tiered minimum post-consumer content levels, reaching 50 percent recycled content by 2031.

We support recycled content standards and believe, particularly for plastic packaging, this policy is imperative to creating robust and durable domestic end markets.

---

Halting Exports, Fighting Pollution

Republic Services does not export plastics overseas. We don’t believe it is good public policy to export recovered plastic material to the developing world, especially those areas that lack basic solid waste management infrastructure. In 2019, we eliminated the export of plastics to all overseas markets and now work exclusively with North American customers.

Keeping recovered material within North America has economic as well as environmental benefits, including reducing the carbon footprint of overseas shipments, bolstering production and creating domestic jobs. It also allows for greater transparency, which helps assure our customers that their bottles and jugs are being properly handled and aren’t contributing to plastic pollution in rivers or oceans.

---

Investing in Advanced Recycling Technology

As packaging and consumer behavior evolve, so must our recycling facilities. That’s why Republic Services is investing in advanced technology and equipment upgrades that enhance our capacity and capability to recover more key materials from the waste stream.

Small cardboard boxes from e-commerce now outnumber large commercial boxes, a transformation known as the “Amazon effect.” Contamination also continues to be a challenge, with soiled or “wish-cycled” items making up an average of 22 percent of the materials set out by consumers for recycling.

Across the country, we continue to install advanced optical sorting units that scan and separate paper or plastics in milliseconds, add screens that prevent plastic bags from tangling, and replace cardboard processing equipment to better handle e-commerce packaging. These technology upgrades allow us to capture a greater volume of materials more efficiently and support the circular economy.

Upgrades in Minneapolis

Minnesota’s Twin Cities are fast-growing and environmentally minded, both of which are contributing to an increase in recyclable materials from customers in the area. In fact, the city of Minneapolis set ambitious diversion targets that call for recycling 50 percent of the city’s waste by 2020 and 80 percent by 2030.

To accommodate higher volumes of recyclables, we invested $8 million in a renovation of our downtown Minneapolis recycling facility. The upgrades included a full retrofit of the processing equipment – including three optical sorters to improve the quality of recovered paper, plastics and metal cans – increasing the facility’s capacity by 35 percent and helping our municipal partners meet their goals.

Autonomous Fire Suppression

Recycling facility fires are an ongoing concern across the industry. In the last five years, there have been an average of 318 reported fires annually at facilities in the U.S. and Canada, according to an industry report. Many of these fires can be traced to improperly recycled lithium-ion batteries, which are highly flammable when compressed or crushed by equipment. When a fire ignites amid the paper and cardboard that make up the majority of materials in a recycling facility, the situation can get extremely dangerous very quickly.

Recycling infrastructure is critical to the services we provide our customers, and it’s essential that we ensure business continuity. To mitigate the risk of loss, in 2020, we installed autonomous fire suppression systems in many of our recycling facilities to protect our people and our assets. These systems use innovative sensing technology to quickly identify a fire, and automatically direct a stream of pressurized water and foam to extinguish or contain the flames until emergency crews can arrive. These systems have already proven themselves many times over, allowing us to provide continuous recycling service to our customers and communities, and further demonstrating our relentless commitment to safety.

In 2020, Republic Services processed more than 2.15 billion pounds of food and yard waste, a 20 percent increase over 2019.

A Leader in Organics Recycling

Organics recycling plays an essential role in meeting our goal of recovering more key materials from the waste stream, and this role is expected to grow. Customers are increasingly looking for diversion solutions for their food and yard waste, and legislation is contributing to those efforts. In response, Republic Services is investing in programs and processes to increase our organics recycling capabilities and contribute to the circular economy.

Food and yard waste represent more than 30 percent of the municipal solid waste that’s sent to landfills, according to the EPA. When this organic waste breaks down in a landfill, it creates methane.

Diverting food and yard waste to organics programs like ours has a dual benefit: This material can be recycled into nutrient-rich compost or renewable energy, and diversion reduces emissions from landfills.

Organics Pre-Processing

Before organic material can be recycled into compost or renewable energy, it needs to be free of contamination. Commercial food waste, which comes primarily from restaurants or grocers, contains considerable contamination. Removing contaminants such as plastic bags and cutlery is done through pre-processing.

In 2020, we doubled our organics pre-processing capacity in California with the opening of a new facility in Martinez, in the San Francisco Bay Area. Our first organics pre-processing operation, in Anaheim, began operations in 2018. Each site is capable of processing up to 20 tons of organic material per hour.

The Northern California facility removes contamination from food waste collected from businesses. It then produces clean organic material that is converted into renewable energy through anaerobic digestion at a third-party wastewater treatment facility. In Southern California, most pre-processed organic material is delivered to one of our compost facilities, where it’s converted into nutrient-rich soil amendment.

Organics Diversion in California

A new California law (SB 1383) aimed at combating climate change sets phased-in diversion targets for organic waste. State agency CalRecycle estimates that an additional 100 to 150 compost facilities or anaerobic digesters will be needed to achieve these targets, creating opportunities to both grow our business and provide sustainable environmental solutions to our customers.

Composting


Six of our 12 facilities are in California, where there is greater demand for organics recycling and soil products such as compost and mulch. Republic’s three compost sites in Northern California processed approximately 1,400 tons per day of organics and produced approximately 500 tons per day of compost in 2020. To meet the demand for landscaping material, our facility at Newby Island Landfill in Milpitas, California, also produces decorative wood chips that are naturally colored with mineral pigment.

Altogether, our facilities in 2020 produced nearly a half-million tons of nutrient-rich compost – a 69 percent increase over 2019.

See our Organics Operations infographic on page 48.

Organics Recycler of the Year

Republic Services was named the industry’s 2020 Organics Recycler of the Year, recognizing our innovation and leadership in our organics operations.

---

Turning Waste into Renewable Energy

Republic Services is a trusted environmental services partner, and our municipal and commercial customers are increasingly turning to us for renewable energy solutions. The transition to a low-carbon economy is driving demand for renewable energy, and with 75 projects at our landfills, Republic is well-positioned to deliver.

Most of these are landfill gas-to-energy (LFGTE) projects that directly support our commitment to increase beneficial reuse of biogas by 50 percent. These 69 projects displace the use of fossil fuels for energy generation, significantly reducing greenhouse gas emissions in our communities and helping our customers meet their sustainability goals.

Landfill gas is produced naturally as waste decomposes and consists primarily of methane. Capturing this gas reduces emissions from landfills and contributes to renewable energy production, ultimately powering vehicles, commercial and industrial facilities, and homes. In 2020, four renewable energy projects were opened or expanded at Republic owned or operated landfills, with many more in development.

See our Landfill Gas-to-Energy infographic on page 50.

Going Solar in Illinois

As an Arizona-based company, Republic Services knows firsthand the power of the sun. Harnessing that power to generate solar energy is another economic and environmental opportunity we leverage at our closed landfill sites. In 2020, construction began on a solar project at our Belleville Landfill in Southern Illinois. When operational in 2021, it will feature more than 30,000 panels and produce nearly 19,000 megawatt-hours of electricity annually. The Belleville project will bring our company’s total solar capacity to more than 40 megawatts, enough to power more than 7,000 homes annually.

Through our LFGTE projects, Republic is beneficially utilizing biogas in one of three ways. These projects came online in 2020:

1. **Renewable Natural Gas (RNG)**
   **SOUTH SHELBY LANDFILL | MEMPHIS, TENNESSEE**
   The South Shelby RNG project replaced a smaller-scale LFGTE facility. The new project produces RNG instead of medium BTU gas and is much larger, increasing our beneficial use of landfill gas at the site by 500 percent. The RNG is injected into the interstate natural gas pipeline, supporting our energy partner’s ambition to be a net zero company by 2050. RNG is often used to fuel natural gas vehicle fleets, such as Republic’s collection trucks. Use of this low-carbon fuel results in up to 70 percent lower greenhouse gas emissions than from diesel. With a production capacity of 4,000 MMBtu per day, the South Shelby RNG facility produces the equivalent of more than 33,000 gallons of gasoline daily.

2. **Thermal energy for commercial or industrial use**
   **McLEAN COUNTY LANDFILL | BLOOMINGTON, ILLINOIS**
   Republic’s McLean County Landfill is a closed site that continues to produce landfill gas. This new project captures biogas and converts it into thermal energy for a local soybean processing plant. The facility uses the thermal energy to power its boilers, reducing reliance on fossil fuels by more than 50 percent – and helping our customer meet its Scope 1 and 2 emissions goals. The project has a total production capacity of over 800 MMBtu daily, enough natural gas to power more than 2,500 homes. Bringing a new landfill gas utilization project to a closed landfill demonstrates Republic’s commitment not only to renewable energy generation, but to the ongoing care and maintenance of a closed landfill.

3. **Baseload electricity for the grid**
   **CENTRAL LANDFILL | PIERSON, MICHIGAN**
   An expansion project at the LFGTE electric plant at Republic’s Central Landfill increased capacity from 2.4 megawatts to 4 megawatts of renewable energy. With the upgrade, the project utilizes 63 percent more biogas to power its generators. The electricity produced by the Central facility is delivered to a local utility, supporting its sustainability goal to source more than half its electricity from renewable energy by 2040 and helping provide cleaner energy to Michigan’s Lower Peninsula.
Sustainability in Southern Nevada

The Las Vegas Valley, home to more than 2 million residents as well as the world-famous Las Vegas Strip, produces more than 5 billion pounds of waste per year. But all of that waste isn’t being wasted. Through Republic Services’ environmentally responsible operations and the sustainable solutions we’re providing our customers, we’re recovering as many valuable materials as possible. In the process, we’re reducing emissions, powering homes – even feeding livestock – and contributing to the circular economy in Southern Nevada.

Organics
Las Vegas’ casinos are renowned for their vast buffet spreads, and, like any restaurant, they produce their share of food waste. Republic has found an innovative and unique solution: Up to 40,000 pounds per day of food scraps from the Strip are delivered to a family-owned hog farm for use as livestock feed. In the EPA’s Food Recovery Hierarchy, feeding animals is a higher-priority use of food waste than conversion to energy, composting or landfilling. The hog farm sits on the property of our Apex Regional Landfill.

Clean Fleet
Republic operates 470 recycling and waste collection trucks in Southern Nevada, 58 percent of which run on renewable natural gas (RNG), the lowest carbon-intensity fuel available for commercial fleets. Use of RNG in place of diesel reduces greenhouse gas emissions by up to 70 percent, contributing to cleaner collection operations in the community.

Landfill Innovation
At 1,900 acres, Republic’s Apex Regional Landfill takes in as much as 16 million pounds of waste per day, and like the Las Vegas Strip, it never closes. Landfills generally are built by excavating a section of a site, and then filling that section with waste. At Apex, a local mining company does the digging, extracting rock and clay from the site to use in constructing the region’s roads and buildings. The areas excavated by the mining company are then used for the landfill, providing a lower-impact way of managing and storing waste.

Renewable Energy
When organic waste decomposes in the low-oxygen environment of a landfill, it creates methane. Apex Landfill has 160 wells to collect this gas, which is purified and then used to generate electricity. This renewable energy, created from the region’s waste, is sent to the public utility grid and is enough to power 11,000 homes in the community annually.

Recycling
Our Southern Nevada Recycling Center processes up to 2 million pounds of recyclables each day. The 110,000-square-foot facility is equipped with advanced recycling technology including optical sorters, anti-wrap screens and eddy currents that allow us to efficiently recover valuable cardboard, aluminum, plastic and glass to return to the marketplace. The building itself is sustainable as well, with nearly 1,800 rooftop solar panels helping power the operation.

Giving back to the communities we serve has always been a priority for Republic Services.
Charitable Giving

Investing in the communities where our employees and customers live and work is critical, so our charitable giving platform revolves around neighborhood revitalization and sustainability improvements. We directly support places and spaces in need with financial grants, in-kind donations and volunteer time.

**GOAL**
Positively impact 20 million people by 2030

**CUMULATIVE CHARITABLE GIVING GROWTH**

In 2020, we positively impacted 2.1 million people through charitable giving. This brings us to a total of 4.9 million people positively impacted, achieving 25 percent of our 2030 goal after just two years.

**Republic Services Charitable Foundation**
The Republic Services Charitable Foundation was formed in 2017 to strategically align the company’s charitable giving with a platform focused on neighborhood revitalization. The Foundation is a private corporate foundation funded solely by Republic Services. Through its signature program, National Neighborhood Promise®, the Foundation works with local affiliate organizations of three national nonprofit partners – Rebuilding Together, Habitat for Humanity International and NeighborWorks America – to directly support projects and programs across the country. To date, the Foundation has funded 55 neighborhood revitalization projects in the communities we serve.
Restoring Places and Spaces in Need

In 2020, the Republic Services Charitable Foundation funded 24 National Neighborhood Promise (NNP) projects, which included renovations to local schools and community centers that provide healthy and safe spaces for youth, home repairs for veterans and seniors, and beautification efforts including landscaping and garden beds in public spaces. With a total of $2 million in grants, support per project ranged from $20,000 to $250,000.

NNP projects traditionally include a volunteer day for Republic team members, however those opportunities were scaled back significantly in 2020 due to the COVID-19 pandemic. Despite that, the Foundation and its nonprofit partners continued to make a difference, with several projects shifting some grant funding to pandemic relief for families and others completing planned work through the use of subcontractors.

Las Vegas, Nevada

Rebuilding Together Southern Nevada (RTSNV) and the local Republic Services team distributed dozens of “Safe at Home” kits to residents of the Historic Westside neighborhood of Las Vegas with items to help households during the pandemic. Items included face masks, soap, sanitizer, flashlights and first aid supplies. The kits represent phase one of RTSNV’s Historic Westside Revitalization Project, which is funded through National Neighborhood Promise.

Revere, Massachusetts

The Neighborhood Developers (TND), a Boston-area affiliate of NeighborWorks, directed some of its NNP funding to emergency assistance for local residents affected by the pandemic. Families received direct support for rent, utility payments or other essential needs. TND is on track to use the bulk of its NNP grant for the revitalization of Sandler Square, the heart of a multicultural neighborhood that aspires to host a Moroccan-inspired open-air market.

Chicago, Illinois

Rebuilding Together Metro Chicago supported Chicago Youth Programs through its NNP project, with a renovation of the Community Center of Washington Park/Englewood, a facility that serves 400 at-risk youth. Subcontractors replaced the deteriorated gymnasium floor, removed an unused stage, built a gym storage room, and repaired the exterior fencing and security gate, preparing for children to return in person.
Making a Difference, Socially Distanced
As the COVID-19 pandemic eased in parts of the country later in the year, Republic teams were able to participate in select NNP volunteer days. These projects were outdoors, with volunteers masked and socially distanced.

Portland, Oregon
Volunteers from Republic Services and Rebuilding Together Portland/Metro East revitalized an outdoor space at Lents Village, a senior affordable care housing property in SE Portland. Prior to their work, there were many tripping hazards with overgrown plants, cracked concrete and deteriorated raised bed planters. Now, the residents have a beautiful and safe patio as well as new planters in which to garden.

Dayton, Ohio
In partnership with Rebuilding Together Dayton, Republic employees from Dayton, Cincinnati and Northern Kentucky came together for an NNP Day focused on Dayton’s Pineview and Lakeview neighborhoods, benefiting 500 homeowners and the surrounding community. Revitalization projects included yardwork, park cleanup and planting, and bulk waste collection.

Desert Mission Mobile Food Pantry
A grant from the Republic Services Charitable Foundation allowed Desert Mission Food Bank in Phoenix to create a Mobile Food Pantry. This truck and refrigerated trailer, adorned with the message “Food as Medicine,” addresses food insecurity at the source, bringing fresh foods to targeted neighborhoods and areas identified as food deserts. Desert Mission expects the Mobile Food Pantry to deliver 25,000 nutritious wellness bags over the next three years to families experiencing food insecurity.

The Foundation is a longtime supporter of Desert Mission. In addition to granting more than a half-million dollars in funding since 2003, we've provided leadership involvement, employee giving, adopt-a-family opportunities and volunteerism.

Equitable Access to Outdoor Space
By partnering with local nonprofit charitable organizations, Republic Services aims to help strengthen neighborhoods that have experienced disinvestment by rebuilding, revitalizing and restoring public places and spaces. For example, many people today do not have access to clean and safe parks or outdoor spaces. According to the Trust for Public Land, 100 million Americans, including 28 million children, do not have a park within a 10-minute walk of their homes. Our 2020 National Neighborhood Promise grants supported equitable access to outdoor space through projects including revitalization of parks, playgrounds, ballfields and schoolyards, as well as the creation of community gardens in areas identified as food deserts.

Habitat for Humanity Choptank is leveraging its Committed to Serve grant to support organizations that amplify and preserve the civil rights history of the area, including the Harriet Tubman Museum and Educational Center. The Harriet Tubman Organization is using funds to make modifications that address new health and safety standards, enhance the museum’s online presence and virtual offerings, and hire a temporary staff person to support its safe reopening.

**Cambridge, Maryland**

**Atlanta, Georgia**

With the help of its Committed to Serve grant, the Atlanta Neighborhood Development Partnership (ANDP) is providing critical support to two minority-owned restaurants in Atlanta’s underserved Westside neighborhood. Marddy’s Kitchen takes a holistic approach to connect neighborhood residents to fresh food and learning opportunities, while EDC Kitchen helps local chefs scale their businesses via affordable, shared commercial kitchen facilities and retail space. ANDP, a NeighborWorks affiliate, is making needed repairs as well as ventilation improvements to help the two businesses operate safely amid the COVID-19 pandemic.

**St. Louis, Missouri**

Opened as St. Louis’ first charter school, Lift For Life Academy serves a predominately Black community – and approximately 90 percent of its students are Black. Thanks to funding from a Committed to Serve grant, Rebuilding Together St. Louis is making improvements to the school that will keep students safe as they return to in-person learning. One key repair is a new heating and cooling system that not only will keep students comfortable throughout the year, but will filter air and help reduce health risks associated with airborne diseases.

---

Support for Small Business Revitalization

As part of our nearly $35 million Committed to Serve initiative, Republic Services contributed $3 million to the Republic Services Charitable Foundation to help revitalize locally owned small businesses across America disrupted by the COVID-19 pandemic. Small businesses are the cornerstone of strong and vibrant neighborhoods, and many struggled to safely remain open during the past year.

With the Committed to Serve funding, the Foundation provided $1 million grants to each of three longstanding national nonprofit partners: Rebuilding Together, Habitat for Humanity International and NeighborWorks America. The national organizations, in turn, funded 29 local nonprofit partners around the country to provide critical support to more than 135 small businesses – 85 percent of which are minority- or women-owned.
In 2020, employees from each of our 10 business areas shared personal stories of why they give.

“I support Special Olympics. It’s an organization that encourages inclusion and participation and helps athletes of all ages with intellectual disabilities develop physical fitness and build self-confidence while having fun.”

LA SHANDA S.  
West Area

“I support the National Multiple Sclerosis Society. The National MS Society is working to accelerate research, provide resources and support those impacted by MS.”

AMY A.  
South Area

“I support the American Legion because it’s a chance to continue serving after hanging up my Army uniform by assisting veterans, promoting patriotism, helping children and youth, and improving the community.”

JASON M.  
Southeast Area

**Community Grants**

With 345 collection operations in 41 states, our local teams are active supporters of the communities where they live and work. Republic’s Community Grant program allows them to give back directly to their neighbors, with funding to nonprofit organizations that are addressing needs in neighborhood revitalization, safety, disaster relief and social services.

**$1M IN COMMUNITY GRANTS**

In 2020, we provided nearly $1 million in Community Grants to 500 local nonprofits across the country.

**Employee Relief Fund**

The Republic Services Employee Relief Fund is funded by employees, for employees. Since its inception in 2005, the Relief Fund has granted $4.6 million in emergency aid to Republic team members. In 2020, the Relief Fund provided grants totaling $220,000 to 146 employees, 92 percent of whom were impacted by disasters including fire, hurricane, tornado or flood.

Driver David V. in Republic’s Midwest Area was one recipient of Employee Relief Fund support. David and his family suffered a devastating house fire just a few days after Christmas. While they were able to escape unharmed, their house was a total loss. A grant from the Relief Fund helped David, his wife and their three children replace clothing, outerwear, shoes and other essentials.

“Although it will be about eight months until we are back in our home, your donation was a huge relief on the amount of stress we are dealing with,” his family wrote in a letter to the Relief Fund. “I’m not sure ‘thank you’ is enough to express how grateful we are.”

![Employee Relief Fund](image_url)
Appendix

We’ve developed educational infographics that illustrate and explain the different processes related to our business.
Today, 32% of municipal solid waste is recycled. 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.

78% of recyclables sold by Republic Services in 2020 were fiber-based (cardboard, newspapers, office paper).

Paper can be re-pulped into new paper, newspaper, cardboard and other products continuously. Recycled materials, like plastics, metal and aluminum cans, reduce the need to mine materials from the Earth.

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

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

Republic takes the organic material to a transfer station.

Transfer trucks transport larger loads of organic material for processing.

Farmers send locally grown food back into the market, beginning the cycle.

Anaerobic digestion breaks down organic material in an oxygen-free environment. Renewable natural gas from food is captured and converted into grid electricity or pipeline gas.

Food and yard waste become nutrient-rich soil amendment through the composting process.

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.

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

Our fleet of more than 16,000 trucks perform 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.

RNG powered 21% of Republic’s fleet in 2020.

Landfill gas is converted into renewable electricity, renewable thermal energy or renewable natural gas (RNG). RNG fuels our compressed natural gas fleet.

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

Our landfills produce more than 70 billion standard cubic feet of landfill gas per year.

Landfill gas is converted into renewable natural gas (RNG). RNG fuels our compressed natural gas fleet.

RNG powered 21% of Republic’s fleet in 2020.

Landfill gas powers boilers that make thermal energy.

RNG produces up to 70% fewer emissions than diesel.

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

Waste is compacted and covered daily to limit wind-blown debris and odors, and to create a stable, engineered hill.

Vegetation
Topsoil
Protective cover soil
Drainage net
Geomembrane
Compacted clay liner
Compacted waste

Landfill gas is thermally oxidized through flares, reducing its global warming potential by 96%.

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

The completed sections are covered with an engineered closure system, mitigating gas emissions and rainwater infiltration.

A portion of gas is processed and converted into renewable energy.

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

Leachate not reused on-site is sent to a wastewater treatment facility for processing.

Leachate is collected through a series of perforated pipes and pumped out of the landfill.
Environmental Services

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.

170K barrels of oil are recovered and sold annually.

Water is returned to salt water disposal wells.

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

Republic provides on-site treatment, waste removal, hydro-excavation, pit remediation, tank cleaning and equipment rental.
Circular Economy

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

**COLLECTION**

**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 sold to producers, displacing extraction and production of virgin resources.

**ORGANICS**

Landfill gas is captured to create renewable power and fuel.

Our composting services convert organic material into soil amendment.

We pre-process commercial food waste to make renewable natural gas.
Learn more about our sustainability and ESG work through our GRI, SASB, TCFD and other reports at RepublicServices.com/Sustainability.

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