

Sustainability Report 20 23





We are excited to publish our 2023 Sustainability Report, which showcases our company-wide commitments to decreasing greenhouse gas emissions, supporting our diverse employee-owners, and partnering with local communities to advance resource recovery and achieve our shared goals.

All data in this report is for the year ended September 30, 2022, except where otherwise noted. Recology's Scope 1 and 2 greenhouse gas emissions inventory is verified to a limited assurance level by Cameron-Cole LLC, an independent, third party. See [Appendix B](#) for more detail. [Appendix D](#) of this report follows the Sustainability Accounting Standards Board (SASB) waste management standards (Version 2018-10).

For a comprehensive review of our sustainability activities, including previous reports, visit [Recology.com/Sustainability](https://www.recology.com/Sustainability).

Recology is improving how we do business, expanding where we do business, and investing in our employee-owners who are essential to our business in pursuit of our vision—a world without waste.

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CEO Statement

In Continued Service to Our Planet, Our People, and Our Process

As a leader in resource recovery, Recology has always been focused on sustainability. While we work to reduce our carbon footprint, we remain dedicated to providing best-in-class customer service, supporting our diverse employee-owners, and adhering to the highest standards of business ethics and corporate responsibility.

By prioritizing the planet, our people, and our process, we're not just adapting to a sustainable future—we're actively shaping it.

We recently completed our first materiality assessment, which identified the environmental, social, and governance (ESG) topics that are the most important to our stakeholders and our business. The main priorities we identified—from addressing climate change to protecting the health and safety of our employee-owners—touch on all aspects of our business and will inform our sustainability strategy going forward.

We took significant steps forward in our climate initiatives last year. I'm happy to report that we achieved our goal of powering our fleet with 90% renewable or alternative fuels in 2022. We also ran our facilities on 90% renewable or carbon-free electricity, and 50% of the landfill gas we collected was used to generate renewable electricity—but we're not done yet.

By 2028, we are committed to powering our facilities with 100% renewable or carbon-free electricity and using 75% of the landfill gas we collect to generate renewable energy.

As the largest 100% employee-owned company in our industry, we owe our success to a passionate workforce that's committed to meeting the ambitious goals we set in our pursuit of a world without waste. Because our employee-owners remain so critical to our business and culture, we've continued to support them by further defining our career

levels, enacting pay transparency company-wide, and offering dynamic professional development and mentorship opportunities.

To formalize our longstanding commitment to ethical and responsible business practices, we released our new Code of Conduct in 2022. This Code serves as our north star, shaping how we conduct business and build trust with our communities, regulators, and customers. By upholding the code, Recology maintains a culture of accountability that fosters sustainable success and ensures compliance with our legal and ethical obligations.

Looking ahead, our vision of a world without waste will continue to guide us. I'm confident that our collective efforts today will forge a better world tomorrow, and I'm excited for Recology to be at the forefront of that change. Our remarkable progress is due to the dedication of our employee-owners, the support of our valued customers, and the collaboration of our communities and partners.

To all who have contributed to this vision, thank you. Together, we're on our way to a more sustainable future.

Salvatore M. Coniglio
Chief Executive Officer

Recology

Envisioning A World Without Waste

When Recology’s founders immigrated to San Francisco in the early 1900s, they undertook the vital task of collecting and sorting through other people’s garbage to repurpose valuable items for sale and reuse. More than a century later, our philosophy remains the same—where some people see waste, we see resources.

Since our founding, Recology has evolved into a **100%** employee-owned, resource recovery company with **3,800** employee-owners serving **over one million** customers in **136** jurisdictions across California, Oregon, and Washington. With **12** state-of-the-art material recovery facilities (MRFs), **eight** composting facilities, **19** transfer stations, and over **2,600** vehicles, we’re making great strides towards our ultimate goal—a world without waste.

At Recology, we envision a world without waste as the achievement of true circularity—where waste is first reduced and eventually eliminated altogether. In this world, the principles “reduce, reuse, recover” are universally practiced, materials are returned to the earth through composting, and goods are reusable and durable, or fully recoverable.

Recology recognizes that, while a world without waste remains a long-term goal, we can take steps in the near term to bring us closer.

As we have since our founding, Recology will continue to prioritize resource recovery and pursue our vision of a world without waste.



Recology in 2022

Highlighting Our Identity and Achievements

90%

of Fleet Fuel From Renewable or Alternative Sources

60%

of Stock Beneficially Owned by Women and Minority Groups

10x

More Owned-and-Operated Recovery Facilities Than Active Landfills

1M+

Customers Served Throughout CA, OR, and WA

10x

More Greenhouse Gases Avoided Through Recycling and Composting Than Generated by Operations

100%

Employee-Owned

3.8k

Employee-Owners

1.3M

Tons Diverted from Landfill

Our Evolution

Incorporating ESG into our Business

Recology has always prioritized people and the planet. Today, we view these priorities through the lens of ESG.

In addition to managing our environmental and social impact and maintaining good governance, we're also working to embed ESG into our daily decision-making.

To support this, our 2022 greenhouse gas emission inventory was reviewed by an independent third party who verified to a limited assurance level that our carbon footprint was accurately reported in accordance with independent standards. This verification provides additional assurance on how we are tracking and reporting our greenhouse gas emissions and serves as a benchmark as we find new ways to further reduce those emissions. More information on our emission inventory verification can be found in [Appendix B](#).

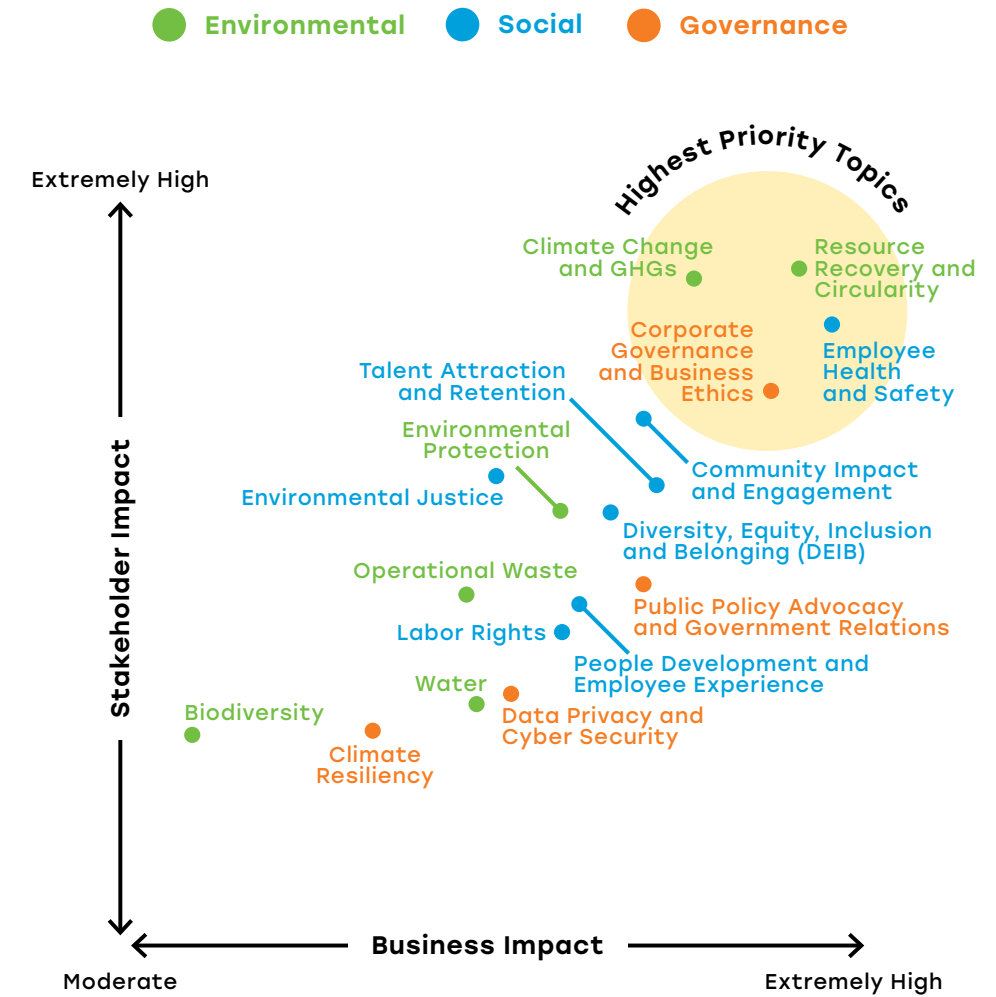
In addition, Recology has expanded our reporting to include SASB disclosures, which

will allow us to better measure and assess our ESG performance, increase transparency and accountability, and provide a clear industry-specific framework for communicating our performance. More information on our SASB disclosures can be found in [Appendix D](#).

IDENTIFYING OUR PRIORITIES

To bolster our ESG efforts, we conducted our first comprehensive materiality assessment in 2023. This process involved identifying our top-level ESG priorities by engaging with both internal and external stakeholders to evaluate the relative business and stakeholder impacts of each priority under consideration. We plan to utilize these results as we continue to expand our ESG program in the coming years.

Materiality Assessment



E

Planet

E refers to Recology's impact on the environment—encompassing our use of natural resources, our efforts to mitigate climate change, as well as our core business function—sustainable resource recovery. We call this our focus on the Planet.

S

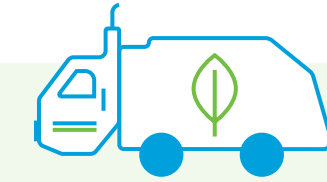
People

S refers to Recology's recognition that our operations have direct social impacts—encompassing community engagement, safety, labor practices, and diversity, equity, inclusion, and belonging. We call this our focus on People.


G

Process

G refers to Recology's focus on ethical conduct and corporate governance, which centers around internal management and decision-making processes. We call this our focus on Process.




Climate Change and Greenhouse Gas Emissions

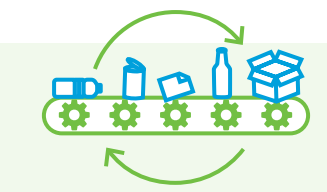


Corporate Governance and Business Ethics

Highest
Priority
Topics




Employee Health and Safety



Resource Recovery and Circularity

Advancing a Sustainable Future in Service to Our Planet



Recology is committed to doing our part to decrease our greenhouse gas emissions and support thriving local ecosystems.

Climate Resiliency

Mitigating and Adapting to the Climate Crisis

Climate change is no longer a distant threat. According to the most recent Intergovernmental Panel on Climate Change (IPCC) report, emitting greenhouse gases at the current rate will likely result in global warming that reaches or exceeds the critical 1.5°C threshold in the next 20 years. Without an immediate, sustained, and global reduction in emissions, climate change will continue to create cascading risks that will be more challenging to manage.¹

We have already witnessed disastrous drought, floods, and wildfires in our communities and,

in response, **we are adapting our operations and practices to promote climate resiliency.**

The global climate crisis can no longer be avoided entirely, but we aim to be an integral part of the solution by partnering with our communities and customers to reduce our collective carbon footprint. Every behavioral change—from composting food scraps to adopting renewable fuels—matters.

Together, we can make a difference.

Resource Recovery

Achieving Climate Benefits

Resource recovery is the foundation of Recology's vision of a world without waste. By diverting material from the landfill, Recology is combating climate change and supporting the circular economy.



The climate benefits of resource recovery depend on the type of material being recycled or composted. **For example, recycling aluminum cans uses 96% less energy than producing cans from virgin aluminum.**³ Aluminum is a highly recyclable material that maintains its integrity in the recycling process.

Hard-to-recycle items can have a climate benefit too—if they're managed and recycled properly. **For example, recycling one mattress saves approximately 500 gallons of water and enough energy to power the average household for three days.**⁴



MATTRESS RECYCLING

Recology's operations in Ashland, Oregon established a mattress recycling program in 2022—the first of its kind in Southern Oregon—and have already **recycled more than 2,000 mattresses** through a unique partnership with a local workforce development program. This equates to saving an estimated one million gallons of water and enough energy to power the average household for over 16 years!

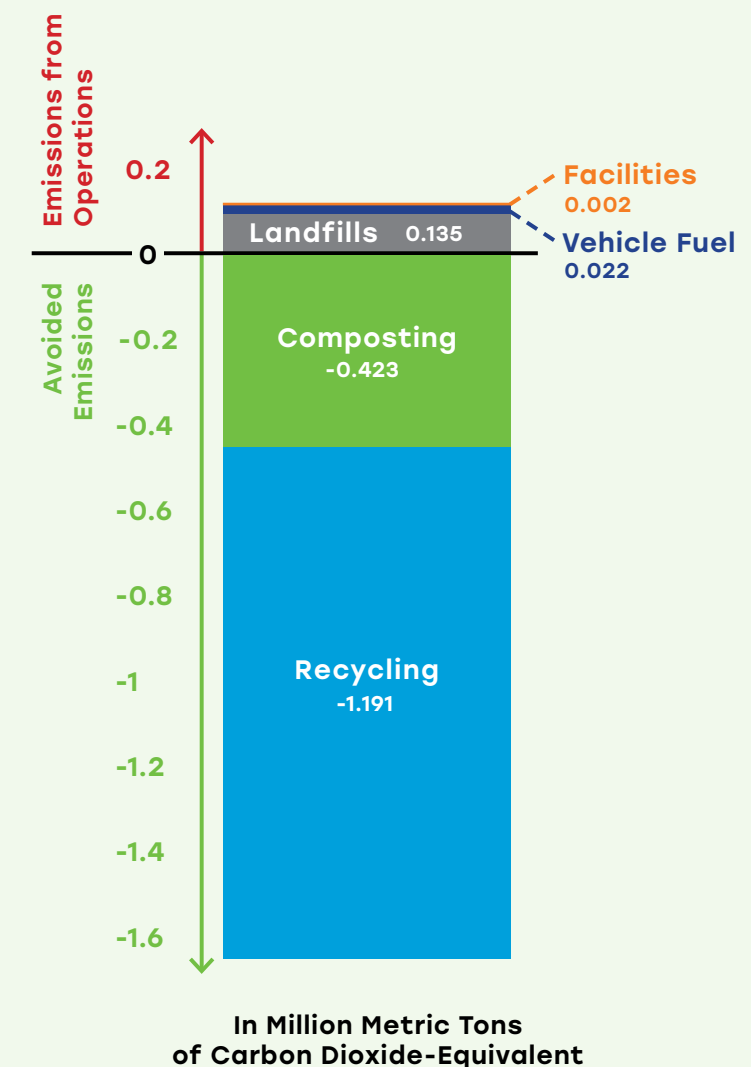
Recology's Avoided Emissions (from Recycling and Composting)

In 2022, for every ton of greenhouse gases emitted by our operations, Recology and our industry partners

avoided

10x
more greenhouse gas emissions

through our recycling and composting activities.^{5,6}





Recycling

Advancing Circularity

Recology supported the recovery of **508,904 tons** of recyclable material in 2022.

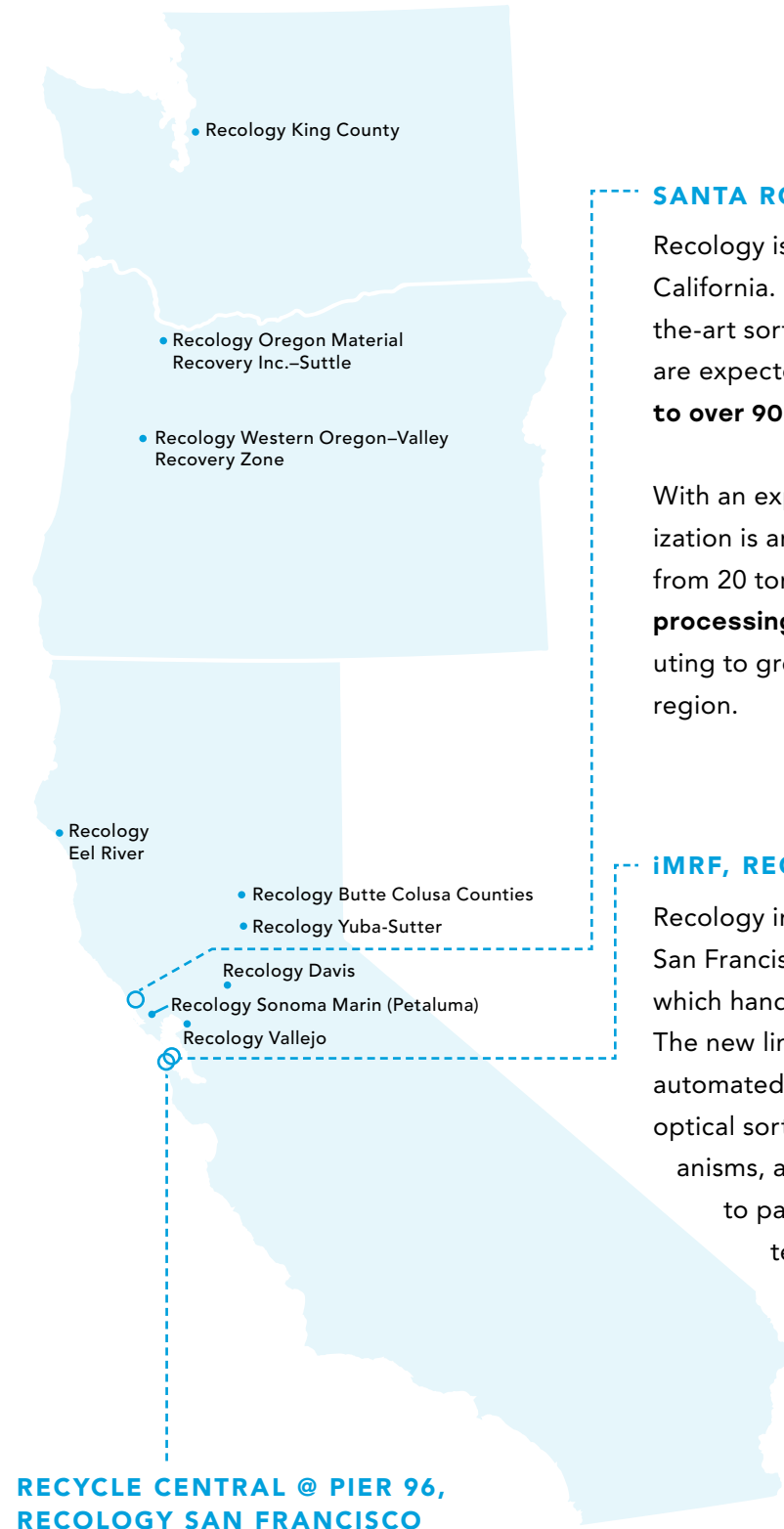
Recology owns and operates 12 Material Recovery Facilities (MRFs). These MRFs focus on sorting materials from our customers' recycling bins into high-quality recyclable commodities, including cardboard, paper, glass, metals, and certain types of plastics. By keeping our contamination rates low, we increase the chances that the commodities we produce can be recycled into new products, thereby facilitating a "closed loop" recycling system.

We are constantly seeking new ways to improve recovery, increase efficiency, and reduce contamination in our recycling process.

Over the last five years, Recology has invested over \$60 million in advanced technologies to upgrade sorting capabilities across our MRFs. Further expansion of those investments is already underway.

WHAT IS CONTAMINATION?

Contamination refers to materials placed in the recycling bin that either can't be sorted in our MRF or are not capable of being recycled. Contamination occurs when recyclable materials aren't rinsed out sufficiently to remove food/liquid residue or when unacceptable items are incorrectly placed in the recycling bin.



SANTA ROSA MRF, RECOLOGY SONOMA MARIN

Recology is modernizing and expanding our MRF in Santa Rosa, California. Improvements include the installation of state-of-the-art sorting systems, including seven optical sorters that are expected to **boost material recovery rates from 60% to over 90%.**

With an expected completion by the end of 2023, the modernization is anticipated to increase our material processing rate from 20 tons per hour to 50 tons per hour, **expanding total processing capacity by 60,000 tons per year** and contributing to greenhouse gas emission reductions throughout the region.

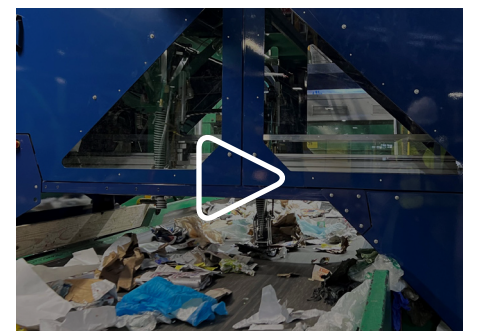
iMRF, RECOLOGY SAN FRANCISCO

Recology invested in a cutting-edge sorting line at our San Francisco integrated material recovery facility (iMRF), which handles construction and demolition debris (C&D). The new line began operating in 2022 and now boasts a fully automated sorting system that includes advanced robotics, optical sorters, air density separators, dust suppression mechanisms, and other innovative technologies. Recology was proud to partner with Pellenc and AMP Robotics to deploy these technologies, making our iMRF the first C&D processing facility in the United States to incorporate optical sorters and high-speed robotics for this application.

RECYCLE CENTRAL @ PIER 96, RECOLOGY SAN FRANCISCO

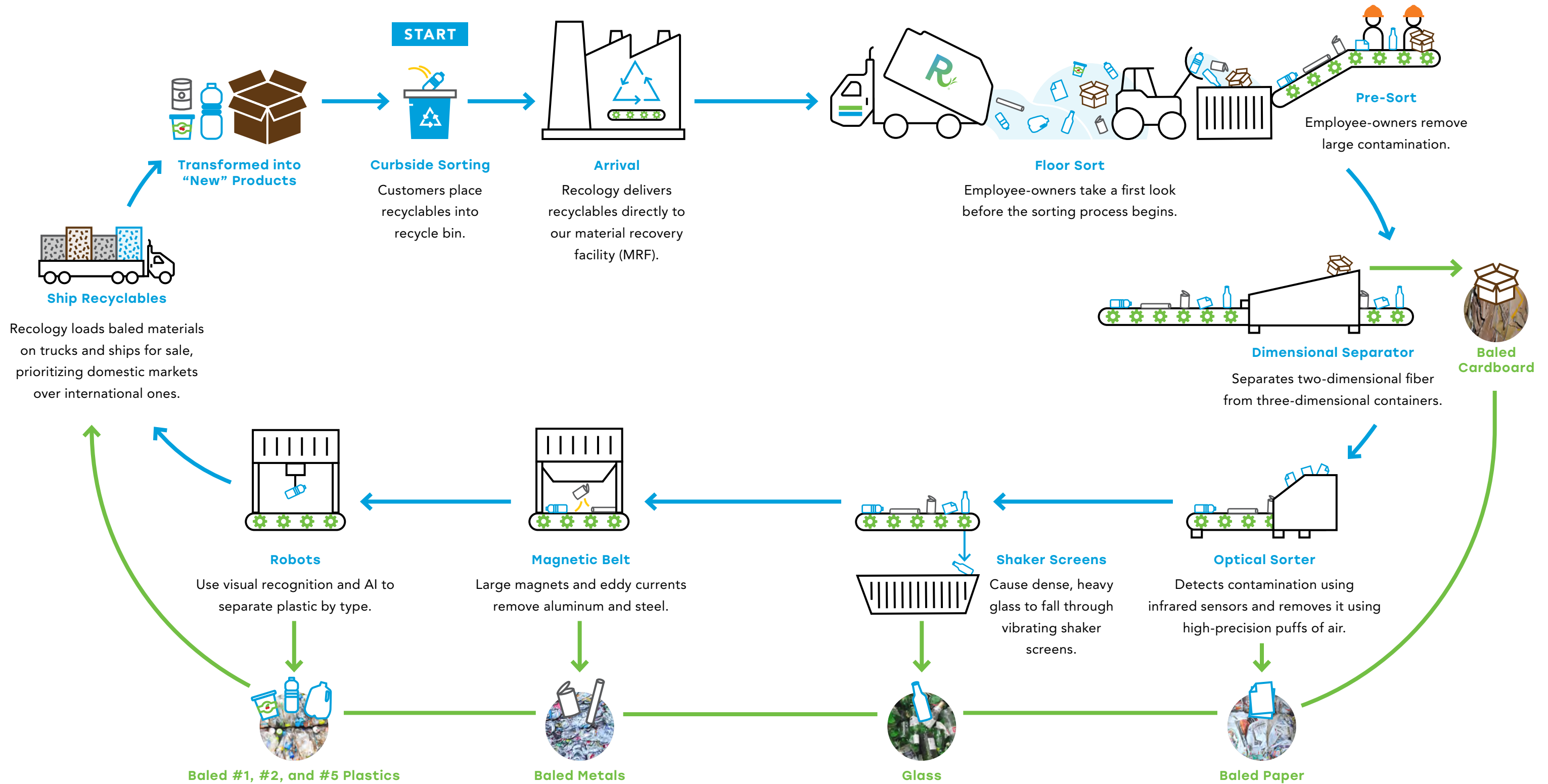
In 2022, Recology partnered with Glacier Robotics to install a robotic sorter on our fiber lines at our Recycle Central® MRF in San Francisco. The robot removes contaminants like film plastic and textiles, resulting in cleaner paper commodities that are more readily recycled into new products. Recology also worked with Everest Labs to install a robotic sorter on our aseptic recycling line to perform quality control on optically sorted cartons.

[Watch Glacier's Robot in Action](#)



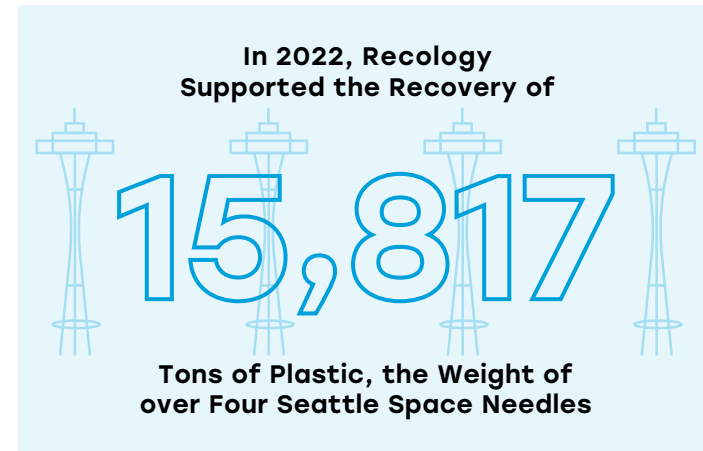
Recycling in Action

Recology plays a critical role in advancing the circular economy. Follow along to learn how materials are sorted at our MRFs and recycled into new products.



This is not representative of every step of the recycling sorting process. Each MRF is uniquely designed for its recycling stream and may have a different layout, equipment, and material flow. Residual materials are sent to the landfill, primarily due to contamination or limited markets for low quality recyclables.

RECOLOGY'S VISION: A WORLD WITHOUT PLASTIC POLLUTION



Not all plastics are equally recyclable. Currently, plastics which are recycled most often are PET (#1), HDPE (#2), and PP (#5). These plastics are typically higher in quality and are easier to collect and reshape into new items, leading to lower recycling costs, higher recovery rates, and greater marketability.

Other types of plastic, including PVC (#3), LDPE (#4), and PS (#6), are typically lower in quality and have limited markets, making it often infeasible or impractical to recycle these materials. **We are regularly exploring new technology and seeking new markets for these commodities to divert more plastic from landfills**, though they continue to remain challenging and costly to manage. While the production of these low-value plastics comes with low costs, the environmental cost associated with these plastics is substantial.

Recology is committed to addressing plastic pollution through a **multi-tiered** approach.


In addition to our recycling activities, we promote source reduction—reducing waste through reuse and redesigning of products—and support extended producer responsibility (EPR)—a policy framework aimed at holding manufacturers accountable for disposal of the products they make.


That's why customer education and outreach that encourage reducing waste are integral to our recycling programs, and why we supported recently enacted EPR legislation in California.


CALIFORNIA'S SB 54


California is acting to increase statewide plastic recycling rates. Senate Bill (SB) 54, signed into law in 2022, puts greater accountability on packaging manufacturers by requiring that all packaging in the state be recyclable or compostable by 2032 and 65% of all single-use plastic packaging be recycled within the same time frame.⁷ Recology supported this legislation for many years before it was enacted and is now partnering with other organizations across the state to implement it.


Types of Plastic


-  **#1 PET** Polyethylene Terephthalate
Water Bottles, Condiment Bottles


-  **#2 HDPE** High-Density Polyethylene
Milk Jugs, Shampoo Bottles

-  **#3 PVC** Polyvinyl Chloride
Plastic Pipes, Cleaning Products

-  **#4 LDPE** Low-Density Polyethylene
Plastic Bags, Plastic Film

-  **#5 PP** Polypropylene
Sour Cream, Yogurt Tubs

-  **#6 PS** Polystyrene
Takeout Containers, Coffee Cups

-  **#7 OTHER** Every Other Plastic
Compact Discs, Safety Goggles, etc.

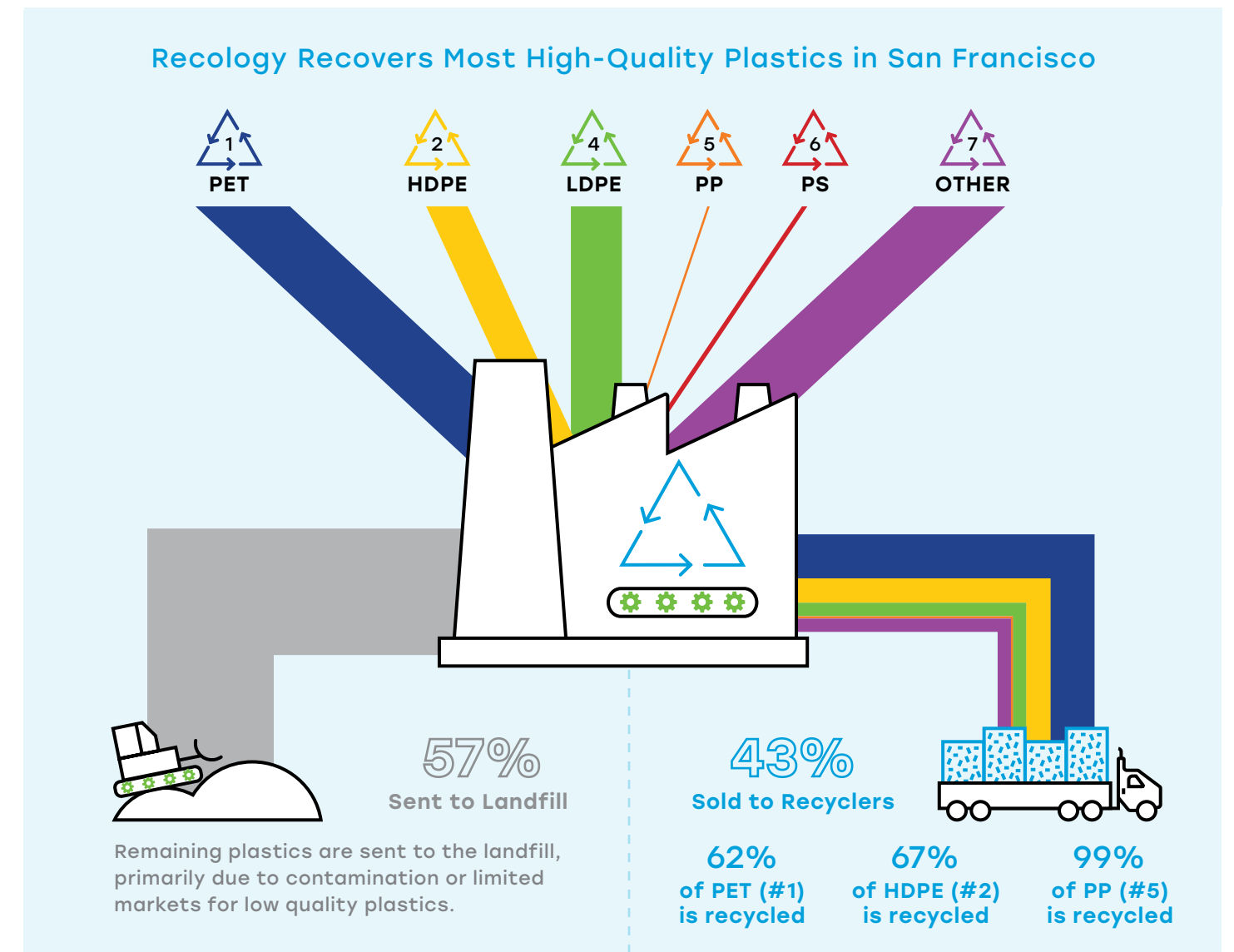
THE TRUTH ABOUT RECYCLING PLASTICS

Recent reports have suggested that only 5% of all plastics used in the United States are turned into new products and that "the vast majority" of plastics placed into recycling bins are sent to landfills.⁸ These reports have created public confusion about whether the plastics placed into recycling bins are recycled.

The truth is that more plastics are being recycled in the United States than these reports suggest.⁹ While lower quality plastics like PVC (#3), LDPE (#4), and PS (#6) are not often recycled due to limited markets, a significant percentage of higher quality plastics like PET (#1), HDPE (#2), and PP (#5) placed in Recology's recycling bins get recycled.

We continuously invest in our facilities, educate customers about source reduction, and place accountability on producers to create products and packaging that are truly recyclable to address the larger issue of plastic pollution.

If you are unsure of what to put in your recycling bin, consult your local Recology company or your local jurisdiction. Recology is here to help.



Composting

Feeding the Soil and Benefiting the Planet

Composting is a natural process that involves the aerobic decomposition of organic materials like food scraps, yard trimmings, and agricultural residues into a nutrient-rich soil amendment called compost.

Today there is widespread agreement about the importance of diverting organic materials from landfills as an effective solution to addressing climate change.

Recology is widely recognized as a leader in commercial composting. We pioneered food scrap collection for composting in 1996 and we continue to make efforts to move the industry forward.¹⁰ Today, we own eight composting facilities spanning over 550 acres throughout California and Oregon.

Composting plays a crucial role in combating climate change by decreasing methane emissions from decomposing organic matter in landfills and sequestering carbon. Compost is also a natural soil amendment that helps to improve the structure, water retention, and nutrient content of soil while supporting a diverse ecosystem of microorganisms, insects, and plants.

In 2022, Recology composted over 684,000 tons of organics at our composting facilities—a 12% increase from 2021.¹¹ Through composting, Recology serves the circular economy and contributes to a healthier planet by delivering valuable nutrients back to the earth and the food we eat.

As a result of Recology’s organics collection and processing operations, **422,619 MTCO₂e were avoided** in 2022.



“We treat soil like dirt, but it’s way more important. It’s where all of our food comes from, and all of us eat, so we ought to honor soil, and how we can do that is by recycling our food waste and making compost.”

– Matthew Engelhart, Regenerative Farmer

RECOLOGY ORGANICS – NORTH PLAINS

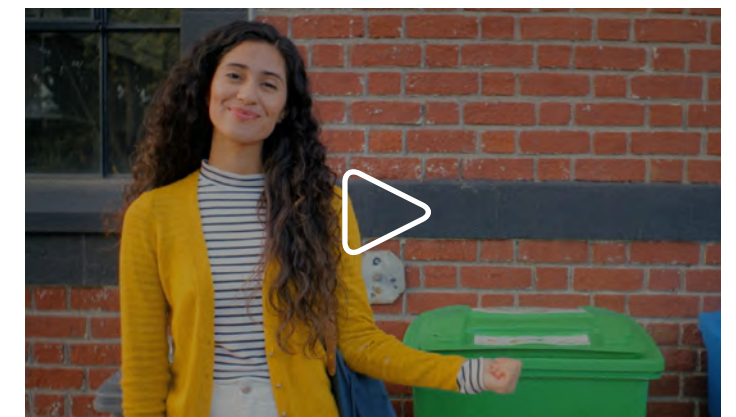
In 2022, we completed improvements to the aerated static pile (ASP) system at our composting facility in North Plains, Oregon, including expanding processing capacity and converting to a mass bed ASP—all to the benefit of the Portland Metro region. The mass bed ASP system allows Recology to compost more organics in the same amount of space and moves the aeration and leachate collection piping below ground, increasing the overall efficiency of the operation.

After installation of the mass bed ASP, the amount of organic material received at the facility **increased by 34%** from the prior year. Recology expects that the new mass bed system will result in an **additional 30,000 tons of composting capacity per year**. This equates to 15,000 MTCO₂e avoided annually, or the equivalent carbon sequestered by nearly 18,000 acres of US forests in one year (about the size of Big Basin Redwoods State Park).¹²

Through our composting process, Recology diverts significant amounts of organic waste from landfills, reduces greenhouse gas emissions, and creates a valuable product that enhances soil health and promotes sustainable agriculture—turning farms into carbon sinks.

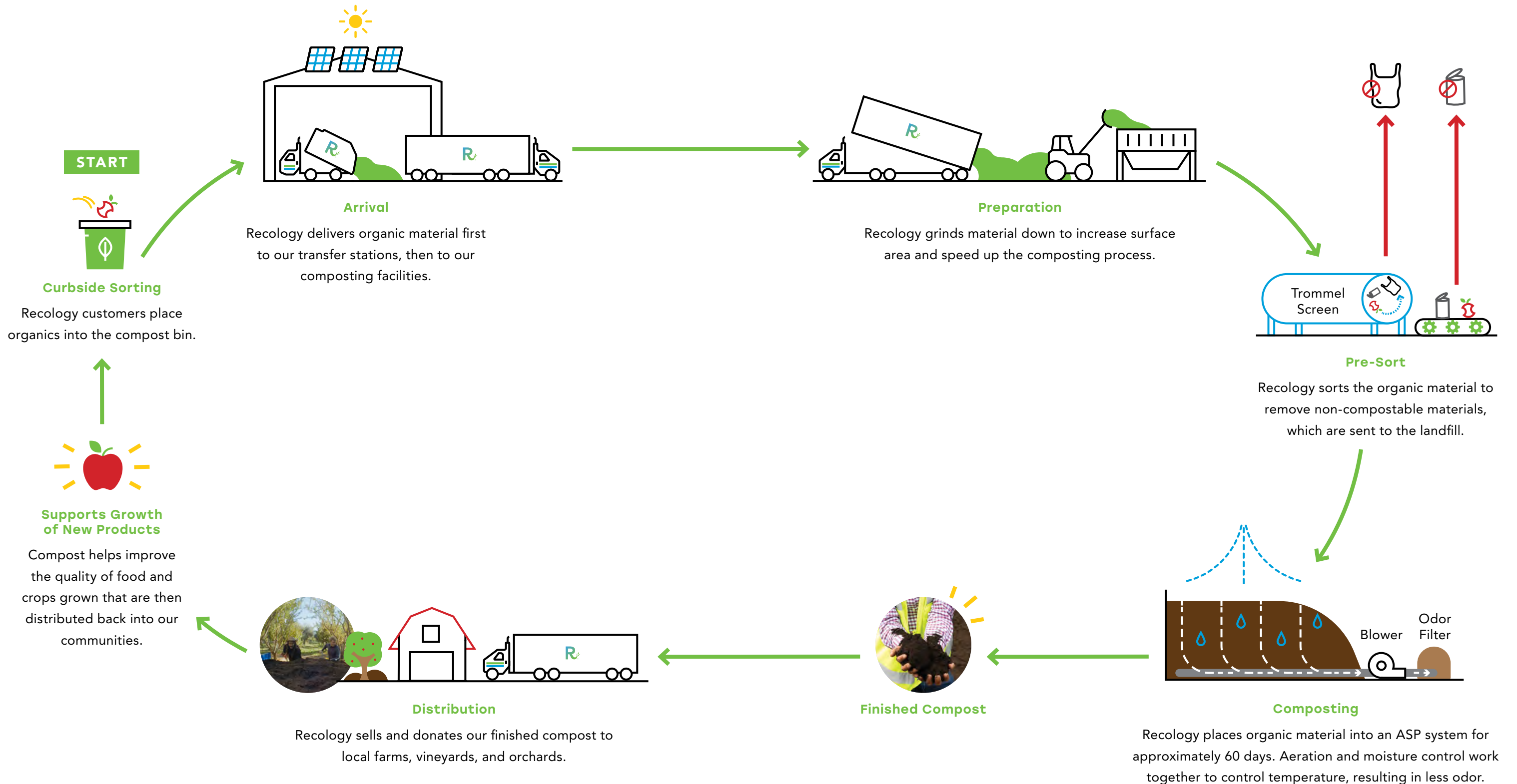
The finished compost is sold or distributed to customers, such as landscapers, farmers, and gardeners, who use it as a soil amendment to improve soil structure, fertility, and water retention. As part of our efforts to support our planet and create a truly closed loop system, Recology holds compost giveaways in many communities. **In 2022, we donated 500 cubic yards of compost in Oregon alone.**

[Watch Back to the Core: A Compost Story](#) to learn more about the importance of composting and how it helps support local farms.



Composting in Action

Follow along to learn how many of Recology's composting facilities utilize aerated static pile (ASP) technology to compost organic material.



This is not representative of every step in the composting process or how all organic material is managed. Each facility is uniquely designed and may have different processing technology.

SB 1383

Expanding Composting in California

Beginning January 1, 2022, California implemented statewide organic waste recycling with an ambitious goal of decreasing organic waste disposal in landfills by 75% by 2025. This groundbreaking legislation, referred to as SB 1383, is part of a broader initiative to reduce emissions of short-lived climate pollutants (SLCP). SLCPs, such as methane, have a greater warming effect than carbon dioxide so further reductions are necessary to slow down atmospheric warming.



In just a single year, our Waste Zero teams have successfully integrated almost 4,000 new organics customers across the state and helped increase organic material recovered at our California composting facilities by 14%.



Recology was ready to spring into action when SB 1383 went into effect. Throughout 2022, our California operations supported jurisdictions subject to SB 1383 by collecting and processing the newly recovered organic waste, carrying out contamination audits, offering outreach and education to customers, and more.

REDUCING CONTAMINATION

Under SB 1383, jurisdictions are required to audit collection routes for potential contamination on an annual basis. As new communities begin to adopt composting throughout the state, these audits are critical to ensuring residents are sorting properly so our facilities can continue to produce high-quality compost.



Landfills

Revalorizing Valuable Energy

Although we own **only two active landfills**, Recology invests significant resources to minimize their environmental impact.

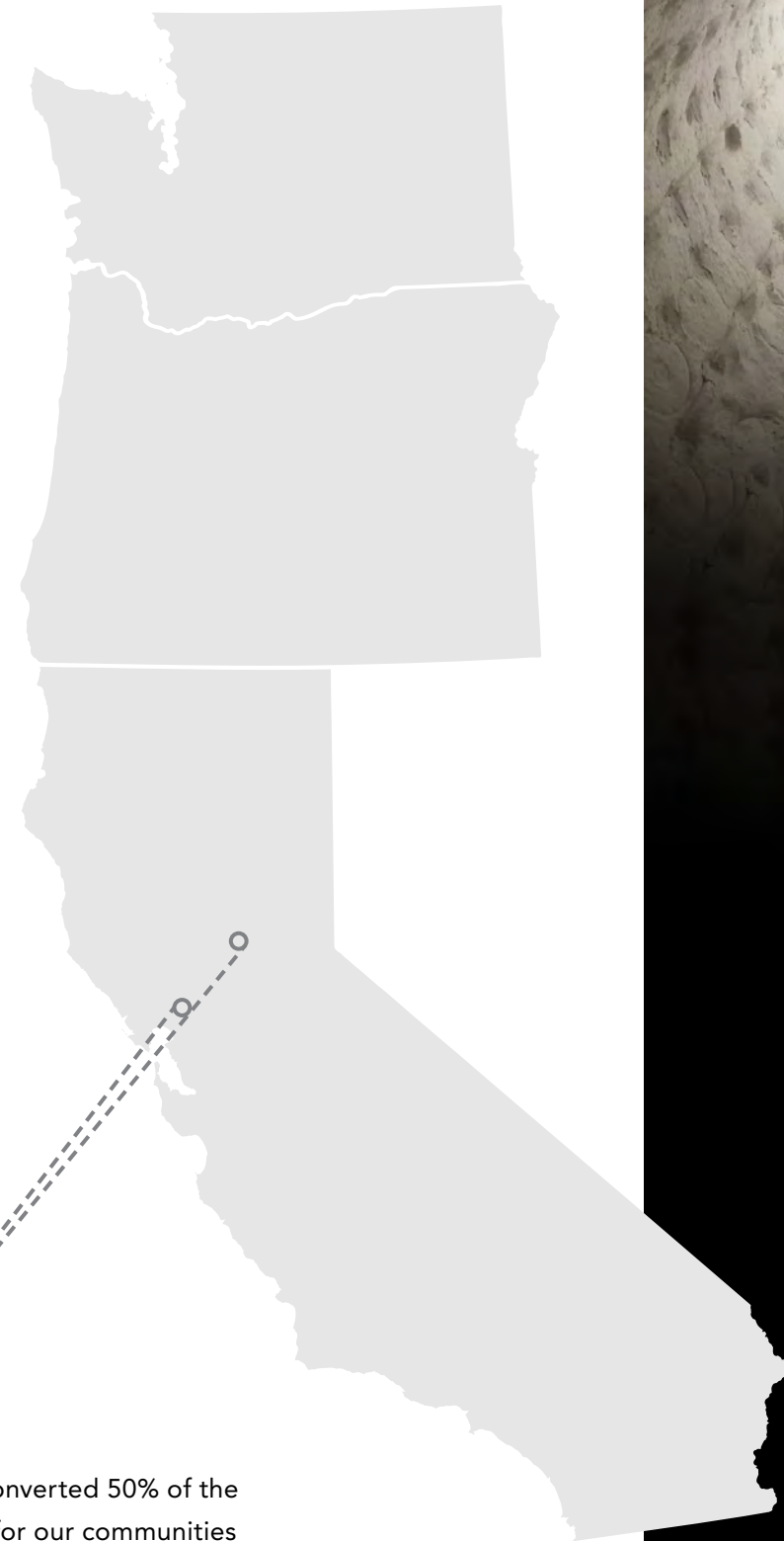
When organic materials are disposed of in a landfill, a lack of oxygen keeps them from breaking down properly and results in the production of gas. Landfill gas is comprised of approximately 50% methane—a potent greenhouse gas with a global warming potential at least 28 times greater than carbon dioxide. **While landfill gas has the potential to contribute to significant greenhouse gas emissions, when harnessed appropriately, it can be revalorized into a usable resource.**

Recology's two active landfills are equipped with a network of gas extraction wells that capture and direct landfill gas to specialized on-site engines that transform the gas into electricity. These gas-to-energy engines generate power while minimizing harmful greenhouse gas emissions.

Recology channels the remaining landfill gas into flaring systems. Burning this gas drastically reduces the amount of methane released into the atmosphere.

RECOLOGY HAY ROAD (LEFT) AND RECOLOGY OSTROM ROAD (RIGHT)

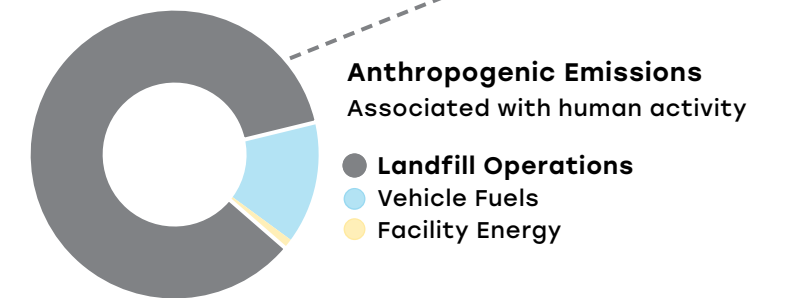
In partnership with renewable energy providers, Recology converted 50% of the total gas collected at our landfills into renewable electricity for our communities in 2022. This amounted to 41,642 Megawatt-hours of energy— enough to power 2,270 US households for a year.¹³



In 2022, Recology's landfill flaring systems combusted approximately 5,803 metric tons of methane, displacing more than 145,085 MTCO_{2e} of greenhouse gases, or the equivalent of removing 32,286 cars from the road for one year.

While these landfill gas-to-energy systems are designed to optimize gas collection, some gas is still emitted directly through the landfill surface—referred to as fugitive emissions. Despite owning only two active landfills, fugitive landfill emissions make up the largest share of Recology's total emissions inventory.

In 2022, landfill gas made up 85% of Recology's total greenhouse gas emissions, equating to 135,163 MTCO_{2e}.

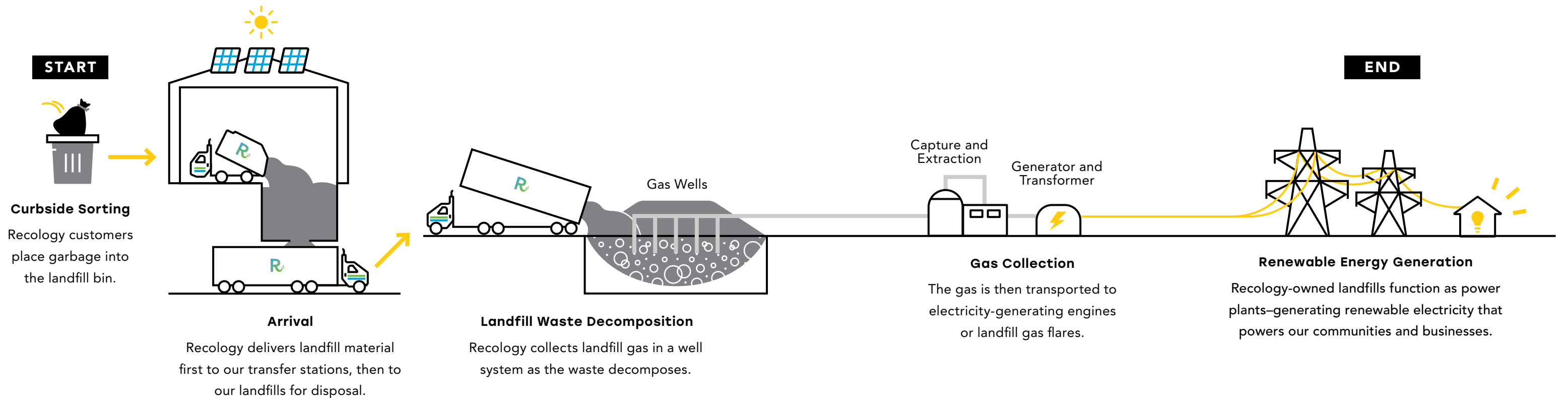


The production of landfill gas and the associated emissions are directly related to the volume of organic materials that end up in a landfill. More organic material in the landfill equates to more landfill gas and greater emissions. This is why Recology continues to invest in our recovery infrastructure and is focused on expanding access to recycling and composting programs in our communities.

Recology is exploring ways to revalorize more of our landfill gas and is committed to using 75% of the landfill gas we collect to generate renewable energy by 2028. We remain dedicated to minimizing the need for landfills by maximizing resource recovery.

Landfill Gas-to-Energy in Action

While diverting material from landfills remains our primary goal, landfill gas-to-energy systems help Recology revalorize landfill gas into a usable resource. Follow along to learn more about how landfill gas is transformed into renewable energy.



Fuel and Electric Vehicles

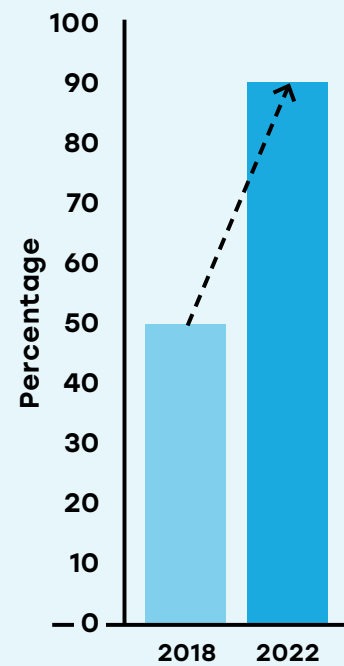
Increasing Our Reliance on Renewable Energy

POWERING OUR FLEET WITH 90% RENEWABLE OR ALTERNATIVE FUELS

Recology is committed to transitioning away from conventional fossil fuels. In 2018, we estimated that our fleet was powered with 50% renewable or alternative energy sources. In 2019, we set the ambitious goal of improving this to 90% by 2022. Despite increased global fuel prices and limited availability of renewable fuels, **we are proud to say we powered our fleet with over 90% renewable or alternative fuels in 2022.**

We are increasingly reliant on renewable diesel and renewable natural gas, which adjusts our carbon footprint away from anthropogenic and toward biogenic emissions. Biogenic emissions are naturally occurring and are produced from the decomposition and combustion of organic materials within the natural carbon cycle. Biogenic emissions have far fewer adverse impacts on the climate than anthropogenic emissions, which are associated with human activity from the burning of fossil fuels. **By switching to renewable and alternative fuels, we have reduced our anthropogenic fleet fuel emissions by 44% in three years.**

Percentage of Renewable or Alternative Fuels Powering the Recology Fleet from 2018 to 2022



As Recology continues to prioritize the planet, we will continue to seek out renewable and alternative energy sources to power our fleet.

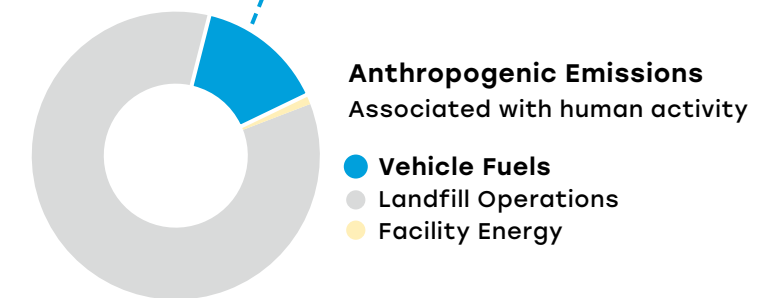


ADVANCING CLEAN FLEETS

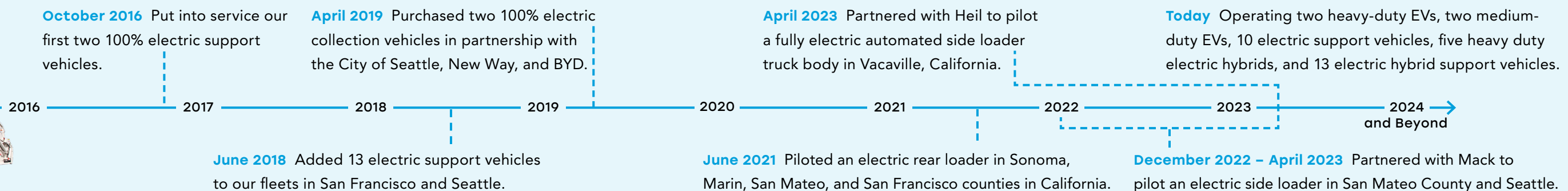
In California, we are already preparing to comply with a California Air Resources Board (CARB) regulation known as Advanced Clean Fleets (ACF). ACF will require operators of large fleets to purchase zero-emission vehicles (ZEVs) in the coming years.¹⁴ Recology looks forward to working with our communities to achieve CARB's goal to aggressively reduce greenhouse gas emissions by transitioning our heavy-duty vehicles to ZEVs.

We believe the goal of fleet electrification is best served through a fair, workable regulation that thoughtfully engages with the challenges industries face when investing in the transformation of their fleets and businesses. Recology wants to see a successful ACF that drives the state towards a zero-emission future.

In 2022, vehicle fuel made up **14%** of Recology's total greenhouse gas emissions from our operations, equating to **22,129 MTCO₂e**.



Recology's Electric Vehicle (EV) Timeline



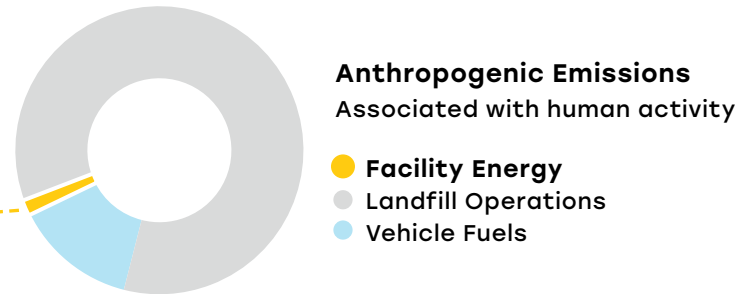
Facilities

Lowering Our Carbon Footprint

By 2028, we seek to run our facilities on 100% renewable or carbon-free electricity.

Recology's facilities include a network of transfer stations, MRFs, composting facilities, retail recycling stores, public buyback centers, customer service centers, maintenance shops, offices, and more. As a result of our commitment to reducing our carbon footprint, **our facilities ran on 90% renewable or carbon-free electricity sources in 2022.**

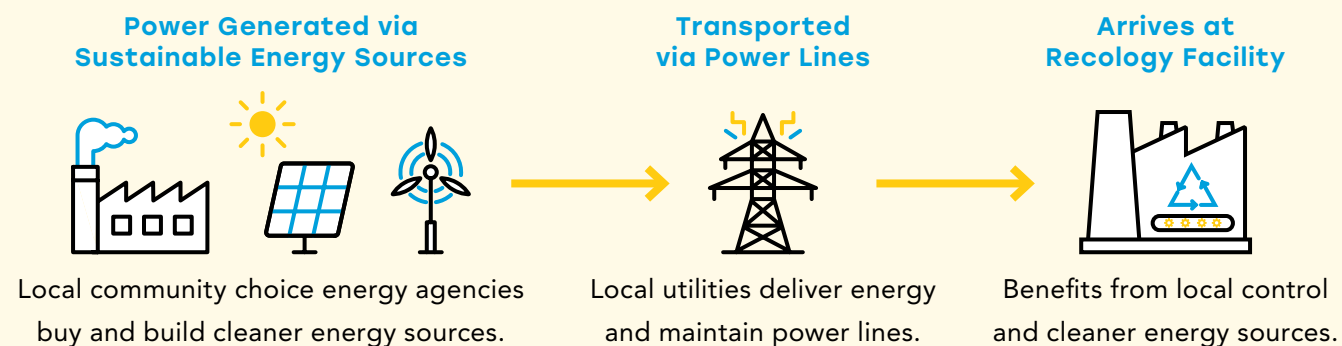
Our facilities make up **1%** of Recology's total greenhouse gas emissions from our operations, equating to **2,089 MTCO₂e.**



How Community Choice Energy Works: Localizing Sustainable Energy Sourcing

Recology partners with California's vast network of Community Choice Energy (CCE) programs, the largest network of its kind in the United States.¹⁵ CCEs offer access to sustainable and local electricity sources, resulting in a portfolio with higher renewable content and lower greenhouse gas emissions.

In 2022, several of our operations ran on 100% carbon-free electricity.



Biodiversity

Protecting Local Wildlife

Recology is committed to protecting local wildlife at or adjacent to our operations. We seek to protect local habitats and prevent the spread of invasive species through targeted conservation activities, and work to mitigate the impacts of our operations by implementing pollution prevention practices.

Recology maintains **587 acres** of natural space at our facilities, including species habitat, open spaces, and land being placed under conservation easements.



Maintaining biodiversity at the Hay Road Landfill

We've implemented conservation practices to help protect and restore the habitat of various species.



Bird Sanctuary

Recology maintains an approximately 18-acre Bird Sanctuary Pond at the Hay Road Landfill. Constructed in the early 1990's, the Bird Sanctuary Pond is an open moat with several small islands that provides vital habitat for waterfowl, raptors, and threatened species, such as the tricolored blackbird. The perimeter of the pond has abundant emergent wetland plants such as cattails, bulrushes, tall sedge, and ditch grass, which provide an excellent habitat for riparian and wetland bird species.



California Tiger Salamander

Recology installed and maintains a perimeter fence to create a protective barrier between landfill operations and the salamander's habitat.



Miniature Lupine, California Poppy, Yarrow, and Tomcat Clover

Recology planted these native species at the landfill based on their ability to self-regenerate without dependence on irrigation, soil amendments or fertilizer.



Giant Garter Snake

By restoring and maintaining a vegetated perimeter ditch, Recology is preserving the habitat of this California threatened species.

Water

Conserving Through Collection and Reuse

RECOLOGY IS WATER-WISE

Recology manages our facilities to minimize the use of freshwater and maximize the reuse of stormwater and wastewater from our operations.

Recology utilizes water throughout our composting process to maintain appropriate moisture levels. We use innovative techniques to collect, manage, and reuse wastewater from our operations. Stormwater and compost leachate are collected in ponds and recirculated back into our composting process, allowing beneficial bacteria in the wastewater to help kick-start the compost process.

Our ability to store water in these ponds helps mitigate environmental pollutants while decreasing our reliance on freshwater throughout the year.



STORMWATER MANAGEMENT

Recology is continuously improving our stormwater management systems to mitigate environmental impacts and maximize our reuse capabilities. In Portland, Oregon, Recology helped restore a neighboring wetland and constructed swales to collect and treat stormwater runoff from our facility before it enters the wetland.

Recology has also improved stormwater infrastructure at our Ashland transfer station to divert runoff away from the adjacent Jeffrey Creek and discharge it into an on-site stormwater management facility.

Due to our proactive approach to stormwater management, **75% of Recology facilities in Oregon have received a waiver from the state Department of Environmental Quality stating that we no longer need to sample water from those facilities on a regular basis.** We continue to proactively manage stormwater across our facilities in service to the natural environment.



Fostering Shared Success
in Service to Our

People



Employee Ownership

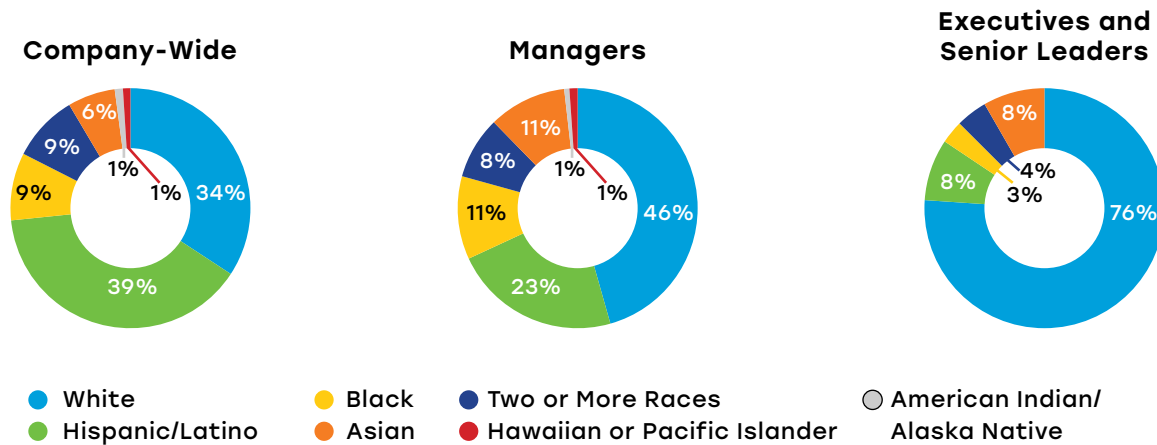
Anchoring Our Culture

Recology is the largest 100% employee-owned company in the resource recovery industry. Our Employee Stock Ownership Plan (ESOP) forms the core of our culture, leaving the stock in the hands of current and former employee-owners, not external shareholders.

Our ESOP is not just supplemental retirement income—it's a wealth accumulation opportunity that is shared among our workforce, promoting cohesion and fueling growth.

OUR DIVERSE WORKFORCE

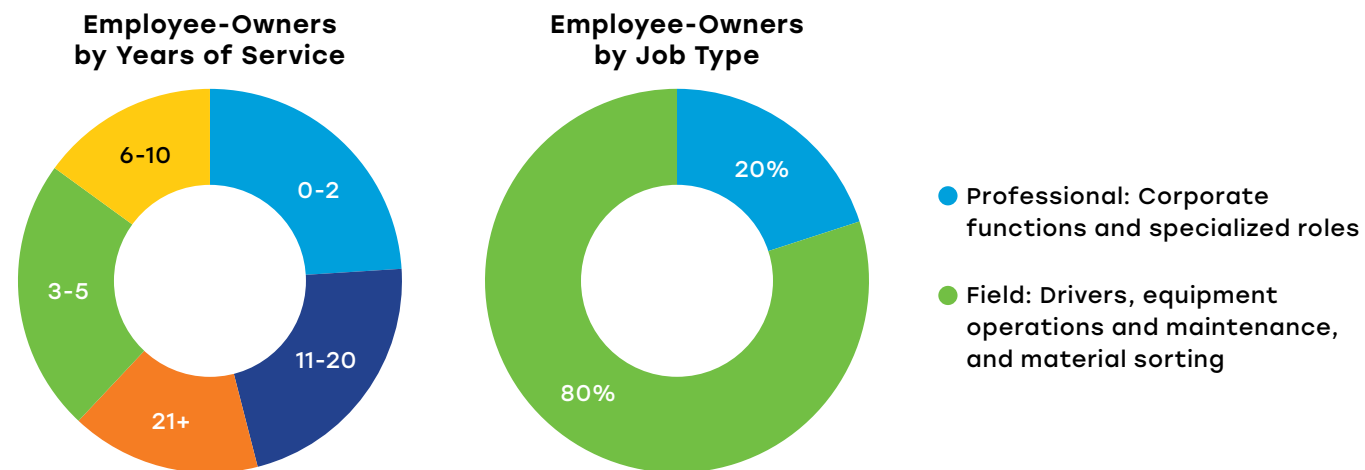
Recology celebrates the rich diversity of our workforce and develops our leaders of tomorrow.



Percentages may not total 100 due to rounding.

WORKFORCE REPRESENTATION: A SNAPSHOT OF OUR TALENT

More than **60%** of the stock is beneficially owned by employee-owners who identify as women or members of an ethnic minority group, or both.



OUR EMPLOYEE-OWNER PULSE

In a recent survey¹⁶, our employee-owners shared they are happy to work for Recology, finding both purpose and belonging at the company. Engagement among employee-owners remains strong.

80%

Would recommend Recology to others as a good place to work

81%

Overall satisfied working for Recology

81%

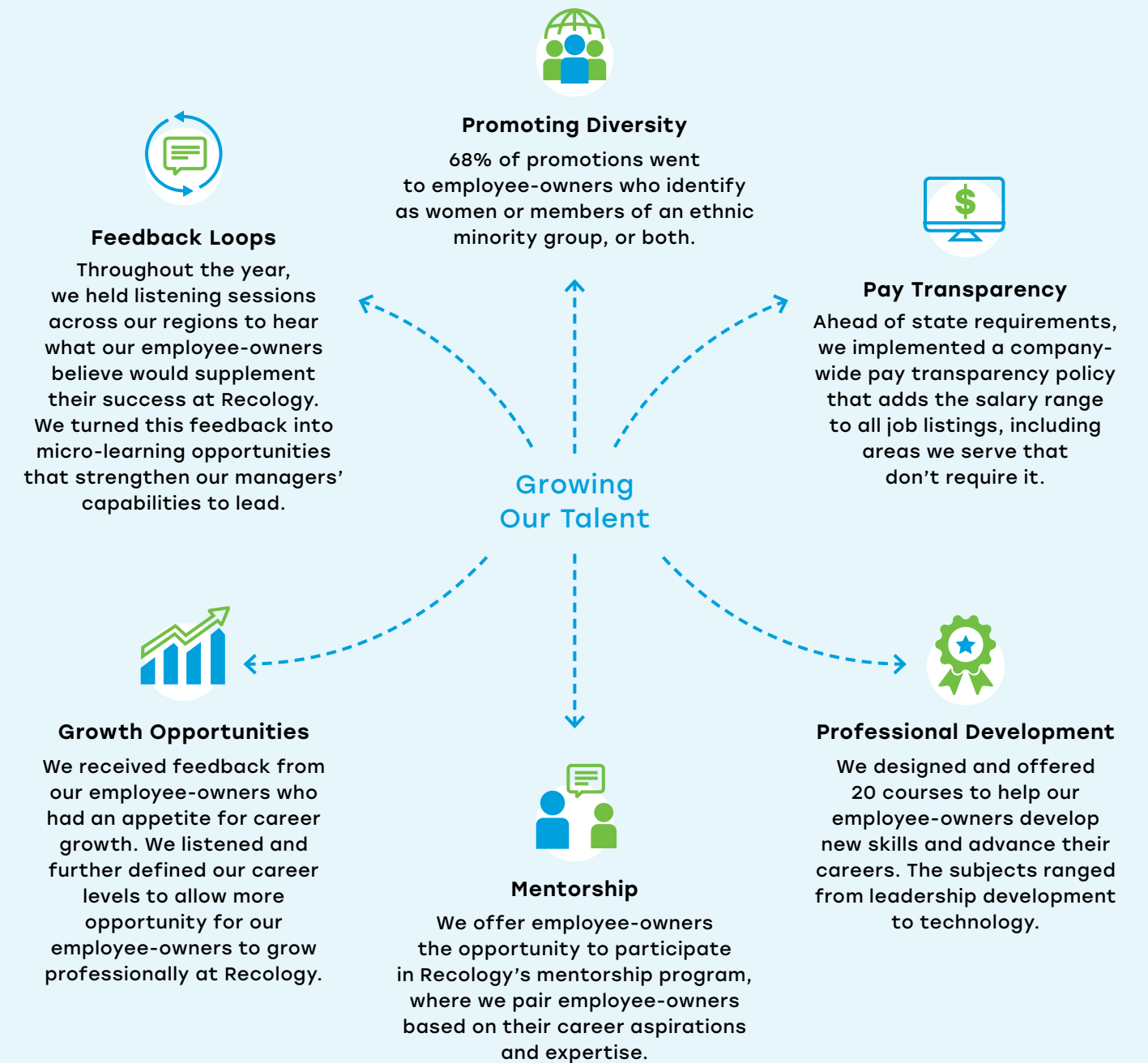
Feel a sense of purpose in the work that they do at Recology

72%

Feel a sense of belonging

PRIORITIZING OUR EMPLOYEE-OWNERS

As Recology continuously builds and reimagines our business, we make our people our priority. We're preparing the next generation of Recology leaders with the tools and knowledge necessary to usher in an era of innovative resource recovery.



Awards and Industry Recognition

Taking Pride in Our Employee-Owners

DRIVER OF THE YEAR AWARD

The National Waste & Recycling Association

The National Waste & Recycling Association (NWRA) awards drivers who exemplify safety and outstanding customer service. Only a handful of drivers are chosen out of hundreds across the entire waste and recycling industry.

We are extremely proud to recognize our 2022 winners:



RICARDO "RICK" ARREDONDO,
RECOLOGY EEL RIVER
Regional Commercial Driver

Rick has more than 30 years of commercial-driving experience and zero accidents.



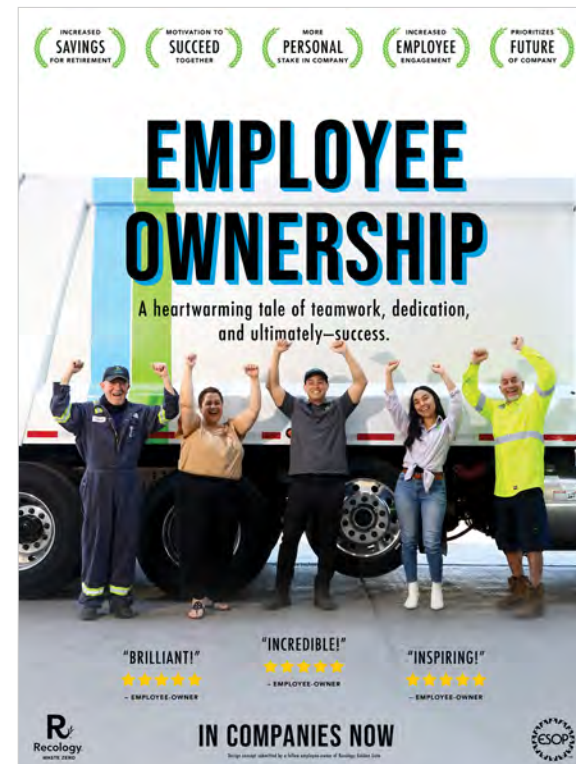
HARVINDER DHATT
RECOLOGY YUBA-SUTTER
Regional Residential Driver

Recognized for his friendly disposition and 17 years of loyalty to Recology.

2022 POSTER CONTEST WINNER

The ESOP Association

After 15 years of participation, for the first time, Recology won the annual nationwide ESOP Association poster contest for best exemplifying the spirit of employee ownership.



BEST COMMITTEE

The ESOP Association, California/
Western States Chapter Awards

The Recology Ownership Culture Committee (ROCC) is comprised of more than 60 employee-owners across all our operating companies who champion employee ownership through engagement and education. The ROCC was recognized at the ESOP Association annual conference for its effective approach in highlighting the value of employee ownership.



2022 RECOLOGY ROCSTAR OF THE YEAR

Vino Perez, Recology Auburn Placer

The Recology ROCStar program allows employee-owners to recognize peers who exemplify our values and exhibit outstanding behavior. This program has been in place for 13 years and winners are selected on a quarterly and annual basis. Vino Perez was announced in the spring as the winner and celebrated at the annual Employee-Owner Meetings that are held across all our sites.





Safety

Ensuring the Health and Well-Being of Our Employee-Owners

Recology’s top priority is ensuring the health and safety of our employee-owners and the communities we serve.

Many employee-owners’ daily responsibilities are physically strenuous and take place in dynamic environments so maintaining a culture of safety is paramount.

Recology employs regional teams across our operations to implement our safety programs and promote our safety-first culture. Through regular meetings and trainings, we ensure that our employee-owners have the proper tools to perform their work safely and effectively. Since 2015, Recology has achieved a **32% reduction in Lost Time Incident Rate (LTIR) and a 15% reduction in Total Recordable Incident Rate (TRIR)**—both substantial improvements in two key industry safety performance metrics.

PROTECTING OUR COMMUNITIES ON THE ROAD

Safe driving is essential to protecting our local communities. We utilize a safety scorecard to measure safety performance across our operations and leverage innovative technology to bolster our safety practices. In partnership with Lytx, Recology has installed artificial intelligence-powered video telematics systems in our entire fleet, which provide broader visibility inside and outside our vehicles. Greater visibility equals safer roads for all of us.



SAFEGUARDING AGAINST FIRE DANGER

In an effort to mitigate the devastating impacts of fires, Recology has rolled out Fire Rover monitoring and suppression services at several of our facilities. Fire Rover uses thermography, flame, and smoke cameras to detect and locate hot spots in our facilities. If a hot spot is detected, Fire Rover’s 24/7 monitoring center sprays a fire-retardant to isolate the fire and prevent it from spreading. The system then notifies designated employee-owners and the local fire department to investigate and address the incident, resulting in an improved monitoring and response time for incidents.

Fire Rover not only protects our employee-owners from fire danger and harmful air pollutants, but also protects our communities and reduces demand for local firefighting resources. Due to the program’s success, Recology plans to install additional Fire Rover monitoring systems at several of our processing facilities.



Jesus Hernandez

**SAFETY MANAGER,
INLAND REGION**

What does safety mean to you?

My career goal is to go my whole career without seeing a single fatality. That's really what safety means to me: being able to go home and see your family.

What is unique about Recology's safety culture?

We enable people to make smart decisions and give them the right trainings so they know how to handle any situation. That enabling aspect creates a true safety culture at Recology. As employee-owners, everyone takes care of things because we all know that at the end of the day we are working together for something bigger than one person. That is the best thing about Recology.



Waste Zero

Educating Our Communities

Recology prioritizes education and outreach within our communities in service of our resource recovery efforts.

Our Waste Zero teams work closely with local community leaders to customize outreach programs that best serve each community's needs through a mix of in-person and virtual trainings, presentations, events, and more.

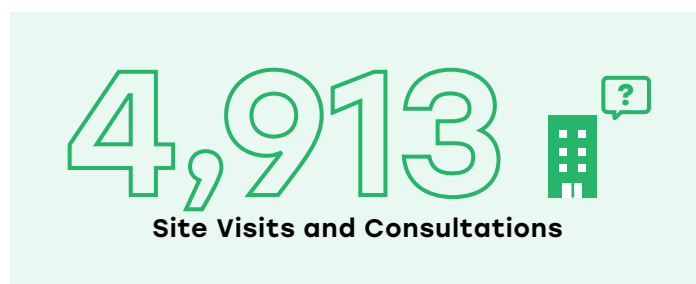
These teams provide hands-on trainings and classroom presentations to educate our customers on proper recycling and composting practices in pursuit of our long-term goal of waste reduction.

By conducting waste audits, we work with businesses and communities to better understand existing recycling programs and identify areas to improve diversion.

We also offer free in-person and virtual tours of some Recology facilities to educate the public on what happens to their material after placing it in their bin and to empower residents and businesses to minimize waste and conserve natural resources.

Our Waste Zero teams and programs are essential to our partnerships with our communities and to pursuing our vision of a world without waste.

Waste Zero Activities in 2022



BRINGING WASTE ZERO TO THE SAN FRANCISCO GIANTS

The San Francisco Giants won Major League Baseball's Green Glove Award for the 13th time in 2022. The Green Glove award is given to the team which achieves the highest waste diversion rate, which is accomplished through sustainable waste management practices such as recycling, composting, food donations, and energy recovery.¹⁷ In 2022, the San Francisco Giants recognized Recology for assisting the stadium with this impressive accomplishment. Recology staff participated in Home Plate ceremonies and were featured on the JumboTron during a series of games at Oracle Park.



HARVESTING WASTE ZERO IN SONOMA COUNTY, CALIFORNIA

In 2022, Recology supported the annual Gravenstein Apple Festival in Sebastopol, California. Recology's Waste Zero team took an active role in preparing for the event and Recology also donated resource recovery services for the day. The event, which drew an estimated 14,000 attendees, collected 2,220 pounds of recycling, diverted 7,000 pounds of food waste from the landfill, and donated over 200 pounds of food to local shelters via nonprofit Sonoma Food Runners.



“ I so miss the daily scavenging. It helped to put the (often) ugly world in a larger perspective. I would regularly just stand in the Public Reuse and Recycling Area, as the trash was getting dropped off, bulldozed into massive piles and hauled away in trucks and just allow all the noise, smells, visual information to flow over and around me in a Zen-like moment, just taking it all in.”

- Rania Ho, 2022 Recology San Francisco AIR

Artist in Residence Programs

Creating a Platform for Conservation and Artistic Expression

The Artist in Residence (AIR) Programs at Recology are unique arts and education initiatives that connect local artists with access to discarded materials, a stipend, and a platform for encouraging the public to conserve natural resources and re-imagine their role in creating a more just and sustainable world.



Founded in 1990 by San Francisco artist and activist Jo Hanson, the Recology San Francisco program has been replicated to support communities in Portland, King County, and Western Oregon, with more programs in the works. Though all four programs utilize discarded items to create

imaginative works of art, each is tailored to respond to the communities' waste streams and local culture.

Recology often commissions artists for special projects following their residency, and venues continue to display their work—contributing to public discourse about sustainability.

281

Artists Supported to Date

14

Professional Artists Selected Annually

4

Student Artists Selected Annually

17.67

Tons of Material Diverted in 2022

3,500

Exhibition Guests Reached in 2022



Josh Sin, photo by Mario Gallucci



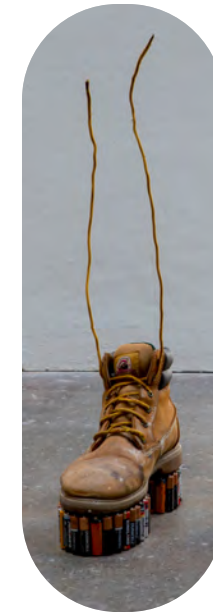
Kija Lucas



Rania Ho, photo by Minoosh Zomorodinia



Sarah Ruether



Andrew Sungtaek Ingersoll, photo by Minoosh Zomorodinia



Omar Howaida El-Sabrou, photo by Minoosh Zomorodinia



Malcolm Kenter and Rachel Marino, photo by Minoosh Zomorodinia



Jessica (Tyner) Mehta, photo by Mario Gallucci



Hilary Pfeifer



Leonard Reidelbach, photo by Minoosh Zomorodinia



Hernan Paganini, photo by Andrew Giammarco

SAN FRANCISCO AIR PROGRAM

The Recology San Francisco AIR Program provides six professional and three student artists with access to materials from the Public Reuse and Recycling Area, a dedicated studio space, and comprehensive support while they create a body of work and host studio visits during their four-month residency.

For the next three years, artwork from the program will be shown at museums and community centers across the United States, thanks to a collaboration between Recology and the Bedford Gallery in Walnut Creek.

[Learn More](#)

GLEAN

GLEAN, a Portland-based arts program launched in 2011, is a collaboration between Recology Oregon Recovery; Metro, the area's regional government; and Cracked Pots, a nonprofit environmental arts organization. Each year, five artists are invited to push the boundaries of material exploration and challenge their existing studio practice by using items discarded at the Recology-operated Metro Central Transfer Station.

[Learn More](#)

KING COUNTY AIR PROGRAM

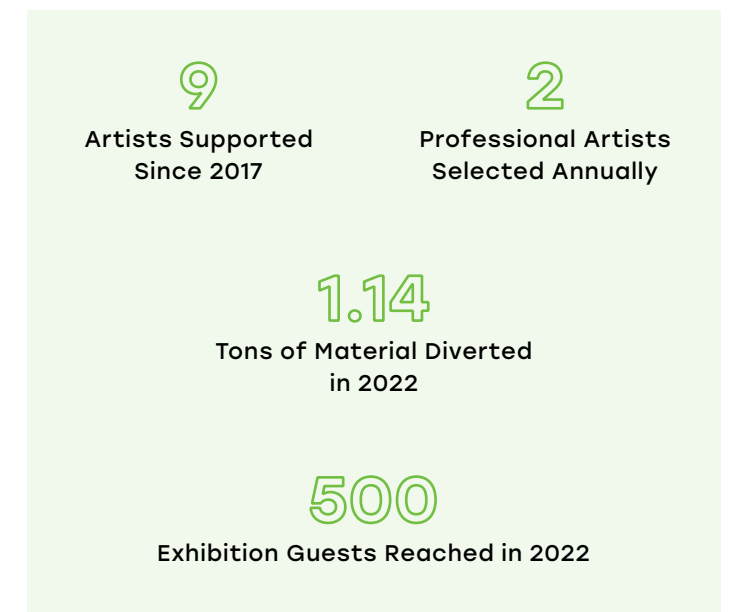
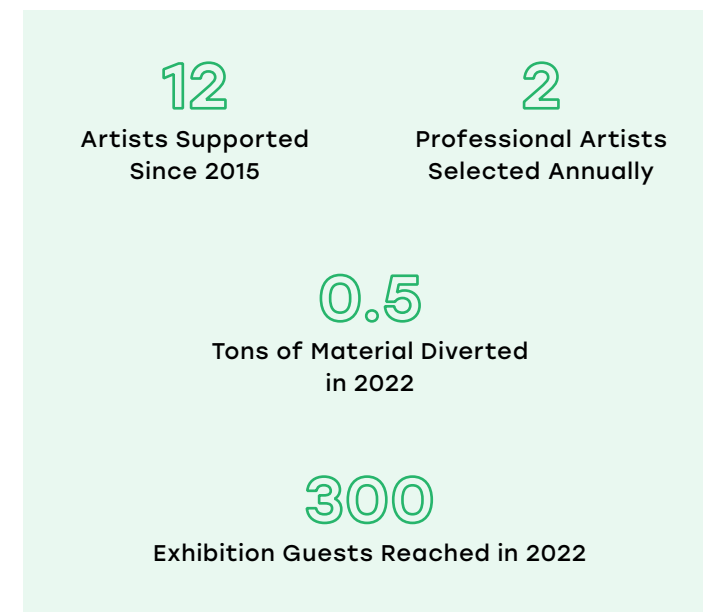
Established in 2015, the Recology AIR Program in King County selects two local artists to participate in the four-month residency and share their examples of creative reuse with the public. Artists receive access to materials from multiple waste streams, including the Recology MRF in South Seattle, a transfer station operated by the City of Seattle, and the Recology Store, which sells recovered items like bicycles, electronics, and paint.

[Learn More](#)

COAR

Since 2017, Recology Western Oregon has partnered with nonprofit Astoria Visual Arts (AVA) on the Coastal Oregon Artists Residency (COAR), which supports the creation of art from recycled, repurposed, and discarded materials. The four-month residency provides two local artists in Oregon and Washington with access to discarded materials from Recology's transfer station in Astoria and a workspace at the Recology facility in Warrenton, OR.

[Learn More](#)



Environmental Justice and Community Engagement

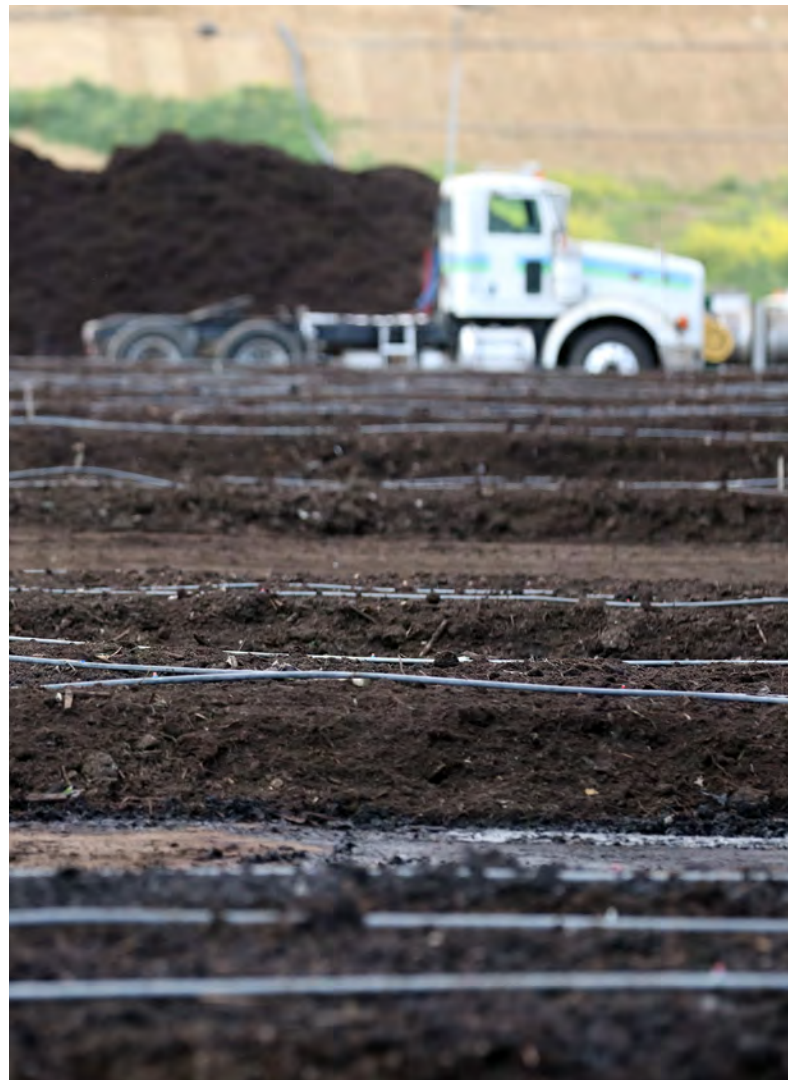
Looking Out for Our Communities

Recology's dedication to the well-being of our communities and our efforts to promote environmental justice go hand in hand. Accordingly, we focus on minimizing environmental burdens where we operate and creating open lines of communication with our communities to ensure our efforts are serving their needs.

To minimize the environmental impacts from our operations, Recology works to reduce noise and odors, curtail litter and pollution, and maintain neighboring roads to preserve the quality of life for our neighbors. We employ regional environmental compliance teams whose efforts are focused on mitigating negative impacts from our facilities.

For example, we minimize odors by implementing comprehensive odor mitigation plans at our processing facilities. **Advanced technologies like ASP systems at our composting facilities reduce odors and volatile organic compounds (VOC) emissions.**

All of these efforts serve to protect our communities and the natural environment.



RECOLOGY IS A GOOD NEIGHBOR

Good neighbor agreements are voluntary agreements between individuals, organizations, or businesses that foster open communication, mutual respect, and collaboration within a community. In 2017, Recology entered into our first good neighbor agreement. This agreement with local community groups in Kern County, California and a national environmental justice organization formalized our commitment to minimizing potential impacts from Recology's operations and improving livability and safety in the surrounding communities.

As part of our commitment, Recology participates in regularly-held bilingual community meetings, maintains full transparency in receipt and response to community complaints, works to reduce air quality impacts, and contributes to local community projects.

We also prioritize hiring residents from the local community for any vacant or new positions.

Following the tremendous success of this agreement in Kern County, Recology has replicated this model as a vehicle for supporting environmental justice and engaging with the communities that surround our facilities.

RECOLOGY HIRES LOCALLY SAN FRANCISCO, CA

Recology benefits the communities surrounding our facilities by bringing well-paying jobs and comprehensive benefits to local residents.

91% of the employee-owners working at our Recycle Central MRF in San Francisco live in the surrounding Bayview-Hunters Point neighborhood—a predominantly low-income community.

Charitable Giving

Supporting Our Communities

In 2022, Recology donated to nearly 200 unique organizations in our communities through a combination of monetary and in-kind donations.

“LET’S TRASH CANCER” PROJECT BENEFITING SOLANO MIDNIGHT SUN FOUNDATION

Recology partners with our customers in Solano, California to raise money for breast cancer research as part of our “Let’s Trash Cancer” program. During Breast Cancer Awareness Month, customers can lease a pink 96-gallon Recology trash cart for a year. Recology donates all proceeds from the lease to the Solano Midnight Sun Breast Cancer Foundation.



OPERATION FREEDOM PAWS

Recology leases the property next to our transfer station in San Martin, California for a negligible amount to the nonprofit organization, Operation Freedom Paws. The organization pairs rescued dogs with individuals suffering from post-traumatic stress disorder, traumatic brain injuries, or mobility challenges with a focus on veterans, first responders, and children with disabilities and the pair participates in a free service dog training program.

Recology is proud to support organizations that align with our mission and vision and celebrates the benefits that our charitable giving provides to our communities.

FACILITY RESTORATION WITH HABITAT FOR HUMANITY INTERNATIONAL YUBA-SUTTER

Recology supports Habitat for Humanity in its mission to provide and build housing for low-income residents. In 2022, Recology donated in-kind services to four separate building and restoration projects in Yuba and Sutter counties in California, including providing free disposal of 70 tons of construction debris and weekly service of multiple waste and recycling bins.



CULTURA Y ARTE NATIVA DE LAS AMERICAS’ 2022 CARNAVAL CELEBRATION

Recology supports Cultura Y Arte Nativa in its mission to educate people on the arts and cultures of the Americas’ indigenous peoples. In 2022, Recology donated recycling, composting, and landfill services to support the organization’s annual Carnaval two-day celebration in San Francisco.

RECOLOGY VOLUNTEER PROGRAM

Established in 2008, the Recology Volunteer Program supports local organizations that work to improve the livability of our communities. Our employee-owners collaborate with community volunteers to rejuvenate and beautify public spaces where we operate using environmentally conscious materials, such as drought-resistant plants, compost, mulch, and recycled paint.

In October 2022, Recology held a volunteer event at Play-4-All Park in Vacaville, California where 110 dedicated Recology employee-owners gathered to help prepare the City’s accessibility-minded park for its grand opening. Our employee-owners installed benches, planted



trees and shrubs, repainted the bathroom structure, and meticulously tidied the playground. Now a haven for families, including those with mobility challenges, Play-4-All Park embodies the power of collective action and stands as a testament to Recology’s commitment to enhancing community well-being.

“This park has been ten years in the making, and we are honored to be a part of their vision to create a fun, safe, and all-inclusive space for all kids to play together. I could not be prouder of our employee-owners working together and giving back to the community we serve.”

– Salvatore M. Coniglio, Chief Executive Officer



The Recology Store

Facilitating a Waste Zero Lifestyle

Recology operates four recycling-focused retail stores in the greater Seattle area.

The stores serve our communities by offering drop-off services for hard-to-recycle items, such as styrofoam and batteries, as well as environmentally-friendly resources and in-person customer service for bill payment. The stores also sell a variety of reusable and recycled products that promote a sustainable lifestyle—advancing our Waste Zero philosophy. Our retail stores are staffed with dedicated Recology employee-owners who help carry out our vision of a world without waste on a daily basis.



“Working for a company that focuses on sustainable practices is a joy and gives hope for a better future for our planet. I love working at The Recology Store because we can promote a Waste Zero lifestyle and encourage sustainable shopping through our products.”

– Elena Dashti, Lead Sales Associate at the Shoreline Store

“I was a Recology (store) customer before I became an employee. People often comment about how bright and colorful our stores are! It is really unique to have a recycling and customer service center within a retail store front. The products we offer for sale help us educate customers about various ways to reduce waste at home and support local businesses.”

– Selina Maxfield, Lead Sales Associate at the Bothell Store



Governing by Our
Principles in Service to Our

Process



Code of Conduct

Fostering a Culture of Accountability and Teamwork

Recology adheres to ethical conduct in every aspect of our business. How we do business reflects directly on our employee-owners, many of whom live in the communities we serve. By encouraging a culture of teamwork and accountability, our employee ownership structure bolsters our enduring commitment to our communities.

Acting ethically is the right thing to do and fosters a sustainable business—one where employee-owners, businesses, and communities trust each other and are invested in our shared success. We pride ourselves on doing business fairly, honestly, and within the law. We would rather lose business than gain it improperly.

Our compliance program helps guide our employee-owners at every level of the company, from the sorting line to the boardroom. We have built a compliance program that supports ethical decision-making, encourages sound judgment, and stresses the importance of accountability.

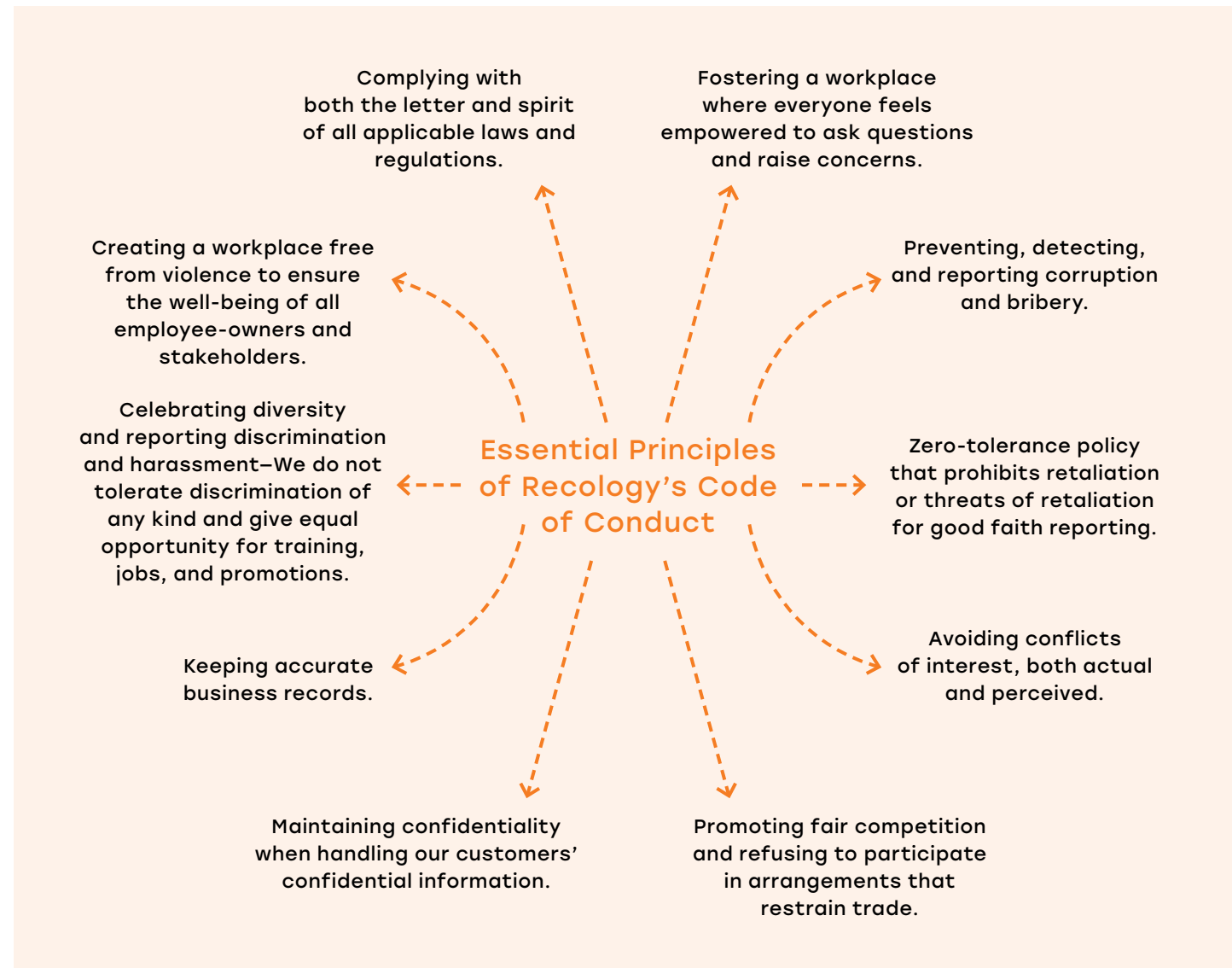
We provide our employee-owners with the training and the tools they need to perform their duties with integrity while complying with all legal and ethical obligations.

CODE OF CONDUCT

Released in 2022, Recology's Code of Conduct (the "Code") formalizes our longstanding commitment to ethical conduct. Ethical decisions and sound judgment are fundamental to every interaction we have with our customers, communities, and each other.

The Code guides Recology employee-owners on ethical behavior consistent with Recology's

values, policies, and the law. The Code applies to every person working with, for, or on behalf of Recology. Our unique Recology employee-owner culture forms the backbone of the Code. It shapes the way we conduct business, encourages mutual care and respect, and builds trust with our communities, regulators, and customers.



Enterprise Risk Management

Protecting and Empowering Employee-Owners

Recology takes risk management seriously. It protects our people and our bottom line. That's why we tell our employee-owners, "Don't hesitate to escalate" when they recognize a risk with potential to negatively impact Recology's business, financial performance, or reputation.

ENTERPRISE RISK MANAGEMENT (ERM) PROGRAM

We designed our Enterprise Risk Management (ERM) program to identify, measure, communicate, and mitigate key risks to the company. Since our inception, Recology has been committed to building a culture of risk management and integrating risk management strategies into every aspect of our business.

Our ERM team is responsible for day-to-day risk management and engages with employee-owners across the company by conducting risk assessments and surveys, hosting listening sessions, and partnering with business leaders to develop risk mitigation plans. In 2022, we hired a new Director of Enterprise Risk Management to continue strengthening our ERM program and ingrain a mindful risk management culture in the company.



Vu Nguyen

DIRECTOR OF ENTERPRISE RISK MANAGEMENT

What makes up a strong ERM program?

An ERM Program is only as good as the people involved. All employee-owners are risk managers at heart, and being mindful of prudent risk management will lead to long-term success at Recology.

By upholding the Code, Recology maintains a culture of trust, integrity, and accountability that fosters sustainable success. [Read the Code](#)

Appendices

Appendix A

Definitions

Greenhouse Gases (GHGs)

Includes any gases that absorb and trap infrared radiation (e.g. energy from the sun) in the atmosphere, leading to increased global temperatures. Many GHGs are caused by human activity and include carbon dioxide (CO₂), methane (CH₄) and nitrous oxide (N₂O).

Source: Overview of Greenhouse Gases—US EPA
[EPA.gov/GHGEmissions/Overview-GreenHouse-Gases](https://www.epa.gov/GHGEmissions/Overview-GreenHouse-Gases)

Metric Tons of Carbon Dioxide Equivalent (MTCO₂e)

A unit of measure that standardizes the climatic impacts of various greenhouse gases by accounting for each gas' heat-trapping potential and persistence in the atmosphere compared to carbon dioxide (CO₂).

Source: Overview of Greenhouse Gases—US EPA
[EPA.gov/GHGEmissions/Overview-GreenHouse-Gases](https://www.epa.gov/GHGEmissions/Overview-GreenHouse-Gases)

Anthropogenic Emissions

Those associated with human activity, commonly generated through the burning of fossil fuels or other human activities (e.g. methane produced in landfills). Anthropogenic emissions result in a net increase in atmospheric greenhouse gases and thus have an adverse effect on climate change.

Source: Report on the Environment: Greenhouse Gases—US EPA
[EPA.gov/Report-Environment/Greenhouse-Gases](https://www.epa.gov/Report-Environment/Greenhouse-Gases)

Biogenic Emissions

Those associated with the earth's natural carbon cycle, commonly generated from the decomposition of organic materials and combustion of biomass-derived fuels (e.g. biodiesel, renewable diesel, and ethanol). As biogenic sources do not introduce fossil-derived carbon into the atmosphere, they do not result in a net increase in atmospheric carbon and therefore have fewer adverse climatic impacts than anthropogenic emissions.

Source: Carbon Dioxide Emissions Associated with Bioenergy and other Biogenic Sources—US EPA
[19January2017SnapShot.EPA.gov/ClimateChange/Carbon-Dioxide-Emissions-Associated-Bioenergy-And-Other-Biogenic-Sources_.html](https://www.epa.gov/19January2017SnapShot.EPA.gov/ClimateChange/Carbon-Dioxide-Emissions-Associated-Bioenergy-And-Other-Biogenic-Sources_.html)

Appendix B

Emissions Data

2022 GHG INVENTORY

Our voluntary emission inventory includes the three internationally recognized GHGs generated from company business activity: CO₂, CH₄, and N₂O. Recology does not participate in activities that generate SF₆s, HFCs and PFCs above de minimis levels, so these gases are not quantified. Our inventory is based on Recology's fiscal year, ended September 30, 2022, and includes emissions from landfills, fleet, and buildings where Recology has operational control. Cameron-Cole, LLC independently verified our 2022 Scope 1 and 2 GHG emission inventory to a limited assurance level in conformance with ISO 14064-3 and The Climate Registry's General Verification Protocol. [Read Our Report](#)

Scope	Description	Anthropogenic (MTCO _{2e})	Biogenic (MTCO _{2e})
1	Direct Emissions from Stationary Combustion <i>Source: Fossil portion of fuels used in stationary assets, natural gas usage at facilities, landfill flaring</i>	1,123	—
1	Direct Emissions from Mobile Combustion <i>Source: Fossil portion of vehicle fuels</i>	21,529	—
Biogenic	Biogenic CO ₂ Emissions from Mobile Combustion <i>Source: Biomass portion of vehicle fuels</i>	—	98,212
1	Direct Fugitive Emissions <i>Source: Fugitive landfill methane</i>	135,100	—
Biogenic	Biogenic CO ₂ Emissions from Stationary Combustion <i>Source: Landfill flaring, biomass portion of fuels used in stationary assets</i>	—	21,897
2	Indirect Emissions from Electricity Use <i>Source: Purchased electricity</i>	1,630	—
Biogenic	Biogenic CO ₂ Emissions from Electricity Use <i>Source: Biomass portion of purchased electricity</i>	—	50
TOTAL		159,382	120,159

RECOLOGY HISTORICAL EMISSIONS (MTCO_{2e})

	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022
SCOPE 1	209,553	187,414	188,571	174,939	157,752
SCOPE 2	4,743	2,001	1,339	2,524	1,630
TOTAL SCOPE 1 & 2	214,296	189,415	189,910	177,463	159,382
TOTAL BIOGENIC	85,970	133,210	135,198	136,453	120,159

Appendix C

References and Methodologies

1. IPCC, 2023: Climate Change 2023: Synthesis Report. A Report of the Intergovernmental Panel on Climate Change. Contribution of Working Groups I, II and III to the Sixth Assessment Report of the Intergovernmental Panel on Climate Change [Core Writing Team, H. Lee and J. Romero (eds.)]. IPCC, Geneva, Switzerland, (in press)
2. Total recyclable and compostable materials encompasses all materials managed at Recology facilities for recycling or organics (compost, mulch, or wood chipping) end markets. Total recyclable material includes all recyclable materials processed at Recology material recovery facilities (MRFs) or transfer stations and sent to third-party recyclers or MRFs. Total compostable material includes all organic materials processed at Recology composting or mulching facilities, or at our transfer stations before being composted at third-party facilities. Both values exclude residual materials sent to landfills. The same conditions apply to all recovery values in this report, unless otherwise stated.
3. Method For Estimating Greenhouse Gas Emission Reductions from Recycling, California Air Resources Board (CARB), November 14, 2011
4. "Life cycle analysis finds mattress recycling cuts emissions, reduces water and energy consumption," Recycling Product News, February 6, 2023
5. Emission avoidances for organics and recycling activity were calculated using a combination of the California Air Resources Board (CARB) Recycling Emission Reduction Factor (RERF, 2011) and Composting Emission Reduction Factor (CERF, 2017) tools, as well as the US EPA's Waste Reduction Model (WARM, 2020).
6. The emission avoidance factor was calculated by comparing the sum of emission avoidances to the sum of company-wide Scope 1 and Scope 2 emissions. Emission figures were calculated using a combination of The Climate Registry (TCR) database tools, utility-specific market-based emission factors, Local Government Operations Protocol (LGOP) equations 9.1, 6.2, 8.7, 8.8, and California Air Resource Board's (CARB) implementation of IPCC's First Order Decay Model. Emissions were verified in accordance with ISO 14064-3 and The Climate Registry's General Verification Protocol Version 3.0.
7. "Governor Newsom Signs Legislation Cutting Harmful Plastic Pollution to Protect Communities, Oceans and Animals," CA.gov, Office of Governor Gavin Newsom, June 30, 2022
8. Sullivan, L., "Recycling plastic is practically impossible – and the problem is getting worse," NPR.org, October 24, 2022
9. "Dispelling Plastic Recycling Myths," wasterecycling.org, National Waste & Recycling Association, 2023
10. Redling, A., "Recology's composting crusade: How Recology's pioneering organics collection program has helped the city of San Francisco divert waste from landfill while providing valuable compost to area farms," Waste Today Magazine, November 10, 2020
11. Reflects the weight of inbound organics composted at all Recology facilities, less residual material sent to landfills during the process. Fiscal Year 2021 weight has been updated from the Recology 2022 Sustainability Update as a result of new, refined data. This value does not include inbound organics processed for mulch or wood chippings, or material sent to third-party composting facilities.
12. Emission equivalencies were calculated using the US EPA's online Greenhouse Gas Equivalencies Calculator.
13. Landfill gas volume, flaring activity, and electricity generation data were provided by vendors Golder Associates, G2 Energy, Aptim, SCS Field Services, and American Solar Corporation.
14. "Advanced Clean Fleets," CA.gov, California Air Resources Board, 2023
15. "Community Choice Energy," City of Irvine, California, 2023
16. In the summer of 2022, Recology worked with a third party to administer an anonymous survey of non-union employees. The survey received 72% participation.
17. "MLB names San Francisco Giants as the recipient of the 2022 'Green Glove Award,'" MLB.com, April 21, 2023

Appendix D

2022 SASB Disclosure

The Sustainability Accounting Standards Board (SASB) created the SASB standards to help businesses and investors identify, manage, and communicate sustainability information that is financially material to a business.

Our SASB disclosures follow the SASB Waste Management Standard (version 2018-10). All data is based on the Recology fiscal year, ended September 30, 2022, except where otherwise noted.

SASB Code	Metric	Unit of Measurement	2022 Recology Response
Greenhouse Gas Emissions			
IF-WM-110a.1	(1) Gross global Scope 1 emissions, percentage covered under (2) emissions-limiting regulations, and (3) emissions-reporting regulations	(1) Metric tons carbon dioxide-equivalent (MTCO _{2e}) (2) Percent (3) Percent	(1) 157,752 (2) 86% (3) 86% <i>(1) Recology's FY22 Scope 1 and 2 greenhouse gas emission inventory includes emissions from landfills, fleet, and buildings where Recology has operational control. Our inventory has received third-party verification in conformance with ISO 14064-3 and The Climate Registry's General Verification Protocol to a limited assurance level. (2-3) Reflects landfills covered by California and Oregon emissions-limiting and emissions-reporting regulations.</i>
IF-WM-110a.2	(1) Total landfill gas generated, (2) percentage flared, (3) percentage used for energy	(1) Million British Thermal Units (MMBtu) (2) Percent (3) Percent	(1) 819,794* (2) 50% (3) 50% <i>*Total landfill gas collected from both open and closed landfills.</i>

SASB Code	Metric	Unit of Measurement	2022 Recology Response
Greenhouse Gas Emissions (Continued)			
IF-WM-110a.3	Discussion of long-term and short-term strategy or plan to manage Scope 1 and lifecycle emissions, emissions reduction targets, and an analysis of performance against those targets	N/A	<p>Recology is committed to reducing greenhouse gas emissions from our landfills, fleet, and facilities.</p> <p>Landfills</p> <ul style="list-style-type: none"> Short-term strategy: Recology owns only two active landfills, both of which have gas collection systems and landfill gas-to-energy facilities that beneficially reuse the gas. In 2022, Recology converted 50% of the total gas collected at our landfills into 41,642 Megawatt-hours of renewable electricity. Flaring systems at our landfills combusted approximately 5,803 metric tons of methane, displacing more than 145,085 MTCO_{2e} of greenhouse gases in 2022. Long-term strategy: We continue to prioritize resource recovery across our operations to minimize the amount of material going to landfills. We are actively pursuing projects to improve gas collection and beneficially reuse additional gas, and we aim to recover at least 75% of our landfill gas for beneficial reuse over the next 5 years. <p>Fleet</p> <ul style="list-style-type: none"> Short-term strategy: In 2018, we estimated that our fleet was powered by 50% renewable or alternative energy sources. In 2019, we set the ambitious goal of improving this to 90% by 2022. We are proud to have achieved this goal in 2022, primarily due to a shift towards renewable diesel and renewable natural gas. As a result, we have reduced our anthropogenic fleet emissions by 44% in three years. Long-term strategy: We continue to prioritize renewable and alternative energy sources for our fleet and are preparing to transition our fleet to zero-emission vehicles to comply with the California Air Resources Board (CARB) Advanced Clean Fleets (ACF) regulation. <p>Facilities</p> <ul style="list-style-type: none"> Short-term strategy: Recology facilities ran on 90% renewable or carbon-free electricity sources in 2022. Long-term strategy: Recology seeks to power our facilities with 100% renewable or carbon-free electricity by 2028. <p>Avoided Emissions</p> <p>Recology's recycling and composting activities result in avoided emissions. Our collection and processing activities supported the recovery of over 1.3 million tons of recyclable and compostable materials in 2022. As a result, for every ton of greenhouse gases emitted by our operations, we avoided over 10 times more greenhouse gas emissions through our recycling and composting activities.</p> <p>Emission Reduction Targets</p> <p>Since 2018, we have reduced Scope 1 and 2 emissions by 26%. Recology is committed to continuing to reduce greenhouse gas emissions from our landfills, fleet, and facilities. We intend to pursue a science-based emission reduction target in the coming years.</p>

SASB Code	Metric	Unit of Measurement	2022 Recology Response
Fleet Fuel Management			
IF-WM-110b.1	(1) Fleet fuel consumed, (2) percentage natural gas, (3) percentage renewable	(1) Gallons (or gallons of gasoline-equivalent) (2) Percent (3) Percent	(1) 11,385,672 (2) 25% (3) 86%* <i>*Consistent with the U.S. Renewable Fuel Standard (U.S. 40 CFR 80.1401)</i>
IF-WM-110b.2	Percentage of alternative fuel vehicles in fleet	Percent	89% <i>Recology powered our fleet with over 90% renewable or alternative fuels in 2022. Read more on page 21.</i>
Air Quality			
IF-WM-120a.1	Air emissions of the following pollutants: (1) NO _x (excluding N ₂ O), (2) SO _x , (3) volatile organic compounds (VOCs), and (4) hazardous air pollutants (HAPs)	Metric tons (MT)	(1) 8.02 (2) 17.71 (3) 0.30 (4) Not applicable <i>Reporting is based exclusively on regulatory requirements for Recology-owned landfills. We use measured landfill gas flow to flares and actual runtimes for calendar year 2022.</i>
IF-WM-120a.2	Number of facilities in or near areas of dense population	N/A	0 <i>None of Recology's active or closed landfills are located near areas of dense population.</i>
IF-WM-120a.3	Number of incidents of non-compliance associated with air emissions	Number	0
Management of Leachate & Hazardous Waste			
IF-WM-150a.1	(1) Total Toxic Release Inventory (TRI) releases, (2) percentage released to water	N/A	N/A <i>Recology is not required to report under the US EPA Toxic Release Inventory (TRI) program.</i>
IF-WM-150a.2	Number of corrective actions implemented for landfill releases	N/A	Not reporting. SASB guidance on this metric is unclear.
IF-WM-150a.3	Number of incidents of non-compliance associated with environmental impacts	Number	0
Labor Practices			
IF-WM-310a.1	Percentage of active workforce covered under collective bargaining agreements	N/A	Not reporting. Read more about our workforce on page 29.
IF-WM-310a.2	(1) Number of work stoppages and (2) total days idle	N/A	Not reporting. Read more about our workforce on page 29.

SASB Code	Metric	Unit of Measurement	2022 Recology Response
Workforce Health and Safety			
IF-WM-320a.1	(1) Total recordable incident rate (TRIR), (2) fatality rate, and (3) near miss frequency rate (NMFR) for (a) direct employees and (b) contract employees	N/A	(1) Not reporting (2) Recology had zero fatalities (3) Recology does not currently track NMFR
IF-WM-320a.2	Safety Measurement System BASIC percentiles for: (1) Unsafe Driving, (2) Hours-of-Service Compliance, (3) Driver Fitness, (4) Controlled Substances/Alcohol, (5) Vehicle Maintenance, and (6) Hazardous Materials Compliance	N/A	Not reporting. BASIC percentile scores for Recology's Department of Transportation (DOT) numbers are available to the public at Ai.FMCSA.dot.gov/SMS
IF-WM-320a.3	Number of road accidents and incidents	N/A	SASB guidance for this metric does not align with Recology's reporting.
Recycling and Resource Recovery			
IF-WM-420a.1	(1) Amount of waste incinerated, (2) percentage hazardous, (3) percentage used for energy recovery	(1) Metric tons (MT) (2) N/A (3) N/A	(1) 0 (2) Not applicable (3) Not applicable <i>Recology does not own or operate any waste incinerators.</i>
IF-WM-420a.2	Percentage of customers receiving (1) recycling and (2) composting services, by customer type	Percent	(1) Percentage of customers receiving recycling services: Residential: 78% Commercial: 75% (2) Percentage of customers receiving composting services: Residential: 73% Commercial: 47%
IF-WM-420a.3	Amount of material (1) recycled, (2) composted, and (3) processed as waste-to-energy	Metric tons (MT)	(1) 613,860. Reporting includes recyclable material collected by Recology and/or managed at Recology facilities, excluding material received from third parties. (2) 1,076,502. Reporting includes organic materials collected by Recology and/or managed at Recology composting facilities, excluding material received from third parties at Recology transfer stations. (3) 1,086,399. Reporting includes material landfilled at Recology-owned landfills with landfill gas-to-energy systems.
IF-WM-420a.4	Amount of electronic waste collected, percentage recovered through recycling	Metric tons (MT)	1,242 MT provided to electronic waste recyclers

SASB Code	Metric	Unit of Measurement	2022 Recology Response
Activity Metrics			
IF-WM-000.A	Number of customers by category: (1) municipal, (2) commercial, (3) industrial, (4) residential, and (5) other	Number	Commercial*: 103,000 Residential*: 999,000 Other: 8,000 <i>*The majority of Recology's commercial and residential customers are serviced through contracts with a municipality.</i>
IF-WM-000.B	Vehicle fleet size	Number	Recology operates over 2,600 vehicles.
IF-WM-000.C	Number of: (1) landfills, (2) transfer stations, (3) recycling centers, (4) composting centers, (5) incinerators, and (6) all other facilities	Number	(1) 2 active, 3 closed landfills (2) 19 transfer stations (3) 12 material recovery facilities (4) 8 composting facilities (5) 0 incinerators (6) 2 landfill gas-to-energy facilities, 18 customer service centers, 4 retail stores <i>Reporting includes Recology-owned and/or operated facilities where Recology has operational control, consistent with our Scope 1 and 2 GHG emissions boundaries.</i>
IF-WM-000.D	Total amount of materials managed, by customer category: (1) municipal, (2) commercial, (3) industrial, (4) residential, and (5) other	Million Metric Tons (MMT)	5.86 <i>Reporting includes all material collected by Recology and/or managed at Recology facilities. Recology does not categorize this value by customer category.</i>

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