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Annual Sustainability Report

Logan Aluminum Inc.

6920 Lewisburg Rd

Russellville, Kentucky 42276

Contents

- Foreword..... 3
 - Our Vision 3
- At A Glance..... 4
- Message from Leadership..... 5
- Waste 8
- Water Resources 9
 - A Commitment to Kentucky and Beyond 9
- Carbon Strategy..... 10
- Our Partners 11
- Scope 1 & 2 12
 - Overview 12
 - Scope 1 Details 12
 - Recovery..... 13
 - Mobile Fuel Sources 13
 - Natural Gas Strategy 13
 - Scope 2 Details 14
- Scope 3..... 15
 - Transportation 15
 - Aluminum Inputs..... 15
 - Close the Loop with Recycling..... 16
 - Logan County Schools 17
 - Our Work Community..... 17
 - Western Kentucky University 17

Foreword



Our Vision

Logan Aluminum is committed to maintaining our legacy of high-quality service and product while prioritizing sustainable practices and improving our ability to serve our community and customers. We will accomplish this through alignment with industry standards and continual use of innovative technology and management.

Logan Aluminum is an integrated aluminum rolling mill located in Russellville, Ky. At our site you will find two remelting & casting facilities, hot rolling, cold rolling, and finishing processes. In 2023 Logan produced over 2.3 billion pounds of rolled aluminum. While there are a variety of uses for our metal, including automotive applications, building materials, and specialty materials, the vast majority of our business is in the beverage can industry. Our facility supplies over 45% of the North American can market. With a wide national and global presence, Logan Aluminum recognizes our increasing need for environmental stewardship, transparency, and influence.

At A Glance



We shall strive to reduce our environmental footprint and risk profile for Logan Aluminum through superior operational performance and compliance to achieve environmental excellence in all areas.



Over **180,000 tons** of post-consumer aluminum scrap recycled

Including **~10.89B cans** recycled in our facility
*at an estimated 32 cans/lb



1,500+ employees

over **7.6M gallons** of water recycled

2.3B+ lbs. of rolled aluminum sheet

Over **11,000 tons** of waste recycled or valorized



Message from Leadership

At Logan Aluminum, we recognize that our role as a leading aluminum manufacturer extends beyond producing high-quality products. We are committed to being responsible stewards of the environment and active contributors to the well-being of the communities in which we operate.



Environmental Sustainability

Our commitment to environmental sustainability is deeply ingrained in our corporate philosophy. We understand that the choices we make today will shape the world of tomorrow. Therefore, we have implemented robust environmental management systems aimed at reducing our carbon footprint, conserving natural resources, and minimizing waste.

- **Carbon Reduction in Upstream Impacts:** Recognizing the significant carbon emissions associated with primary aluminum production, we are actively working with our suppliers to source more sustainably produced aluminum. This includes prioritizing suppliers who use renewable energy sources and adopting best practices for carbon reduction. Additionally, we are committed to increasing the use of recycled aluminum in our products, thereby reducing the carbon footprint associated with our raw material inputs.
- **Energy Efficiency:** We continuously invest in cutting-edge technologies and innovative practices to enhance energy efficiency across our operations. By optimizing our processes, we have significantly reduced energy consumption and greenhouse gas emissions, contributing to a healthier planet.
- **Water Resource Management:** Water is a precious resource, and its careful management is vital to our operations. We are dedicated to reducing water consumption through innovative technologies and improving efficiency in our processes. Moreover, we adhere to stringent water quality standards to ensure that our water discharge meets or exceeds regulatory requirements. We continuously monitor our water use; we strive to protect local water resources and contribute to the sustainability of our environment.
- **Resource Conservation:** Our efforts to recycle and reuse materials within our production processes are paramount. By doing so, we not only decrease our reliance on virgin resources but also set an example for sustainable manufacturing practices.

- **Waste Reduction:** Through meticulous waste management strategies, we strive to achieve zero waste to landfill. Our recycling initiatives and waste minimization programs underscore our commitment to a circular economy.

Social Responsibility

We believe that a sustainable business is one that not only cares for the environment but also uplifts the communities it serves. At Logan Aluminum, social responsibility is a cornerstone of our business values.

- **Community Engagement:** We actively engage with local communities to understand their needs and collaborate on initiatives that drive positive change. Our educational programs, community development projects, and philanthropic efforts are designed to make a tangible impact.
- **Commitment to Employee Safety:** The safety of our employees is our top priority. We are committed to providing a safe working environment through rigorous safety protocols, ongoing training, and a culture that prioritizes health and safety above all else. Our goal is to ensure that every employee returns home safely at the end of each day. By continuously improving our safety practices and investing in state-of-the-art safety equipment, we strive to eliminate workplace hazards and foster a zero-incident environment.
- **Employee Well-being:** Our team members are our greatest asset. We are dedicated to fostering a safe, inclusive, and empowering workplace where every individual can thrive. Through continuous training, health and wellness programs, and opportunities for growth, we ensure that our workforce remains motivated and productive.
- **Ethical Practices:** Integrity and transparency are at the heart of our operations. We adhere to the highest standards of ethical conduct, ensuring that our business practices are fair, responsible, and aligned with our values.

We are proud of our accomplishments in environmental performance and are committed to building on this foundation. We will continue to monitor our progress, report transparently, and seek opportunities for continuous improvement.

In closing, we are grateful for the trust and support of our stakeholders, including our owners, community members, and partners. Together, we can create a sustainable future that benefits not only our company but society at large.

Sincerely,



Mike Buckentin
President, Logan Aluminum, Inc.



“As Logan Aluminum's ESS Manager, I am proud to share our 2023 Sustainability Report, which underscores the integral role sustainability plays in our business strategy. Our significant achievements in reducing carbon emissions, enhancing energy and water efficiency, and minimizing waste reflect our unwavering commitment to environmental stewardship, employee safety, and community well-being. These accomplishments demonstrate our dedication to sustainable practices and ethical operations. We are grateful for the support of our team members and remain focused on continuous improvement and high-impact initiatives.”

-Van Mitchell, *Environmental, Safety, & Security Manager*

“As Logan Aluminum's Plant Manager, I am proud to highlight our unwavering commitment to sustainability, employee safety, and corporate responsibility. In 2023, we made significant strides in reducing our environmental footprint through advances in energy management and waste management practices, while prioritizing the health and safety of our employees with rigorous safety protocols and continuous training. Our dedication to ethical practices and community engagement remains a cornerstone of our operations, ensuring that we not only meet industry standards but also contribute positively to the well-being of our society and the environment.”

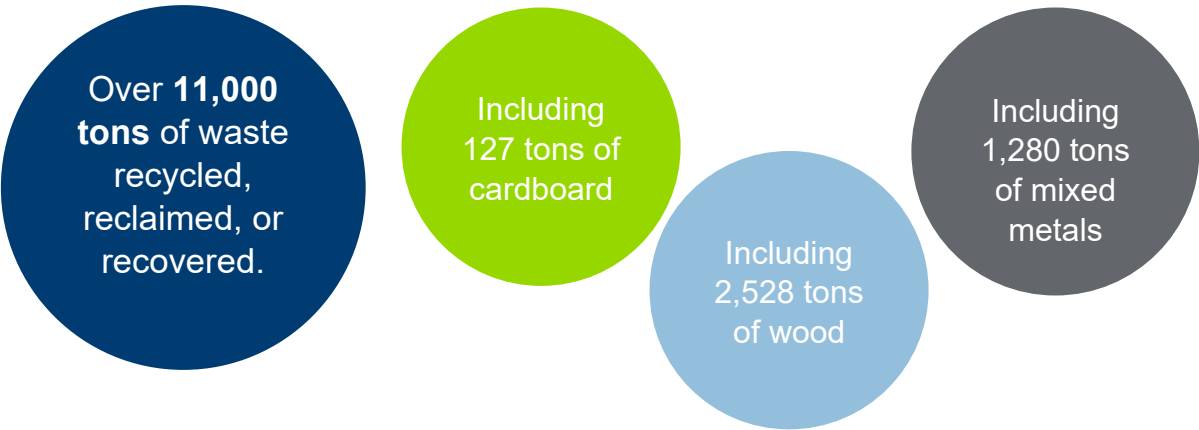
-Paul Banks, *Plant Manager*



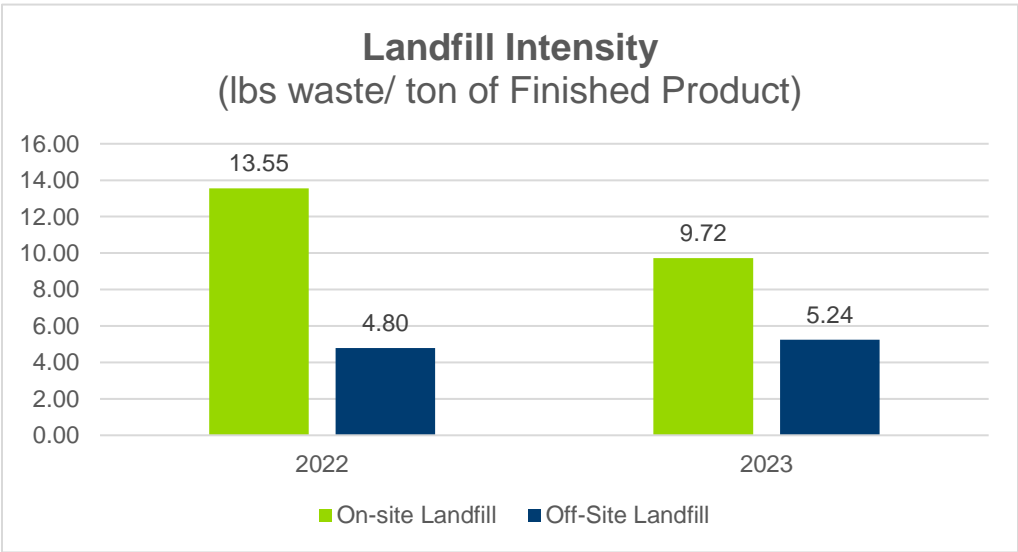
Waste

Logan Aluminum works hard to handle our waste in the most environmentally friendly avenues. This is done through constant reinvestigation of best practices as well as auditing of our waste routes to ensure our Scope 3 impact is minimized.

In 2023, Logan diverted over 12,500 tons of waste from landfilling. Logan is fortunate to have found valorization routes for several of our large quantity wastes. However, for many of our wastes, we are reliant on the stewardship of each employee on our site. Below are recycled materials that were diverted thanks to our employees' choice to properly sort their waste during work!

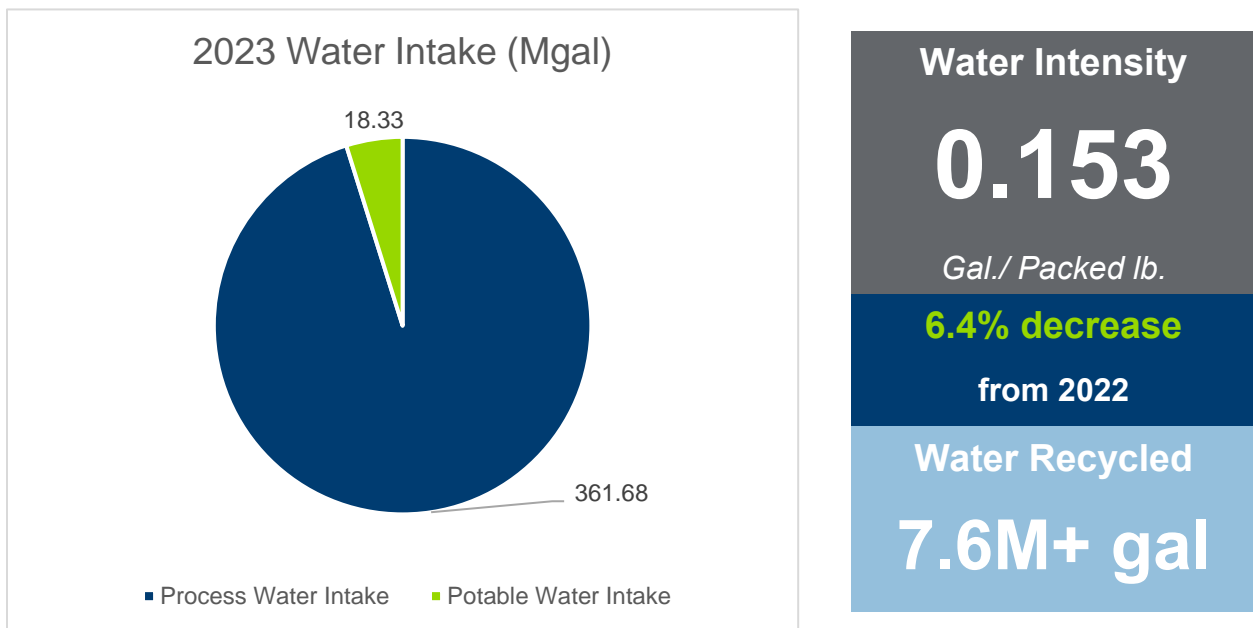


Though Logan is still expanding, we always aim to keep our landfill intensity at a minimum. This growth created the need for improved infrastructure for our on-site landfill. This year Logan introduced an improved scale system to better track and monitor our on-site impacts. With both an onsite landfill as well as off-site landfills, below are our intensities compared to last year.



Water Resources

Logan Aluminum utilizes water across the plant for casting, rolling, and finishing operations. This water is managed and treated internally. A focus for 2023 was an increase in automation for data collection and processing. Updating equipment, creating communication between sensors and intake structures, and repairing aging infrastructure were all key projects that led to a decrease in the water intensity used to make our product.



A Commitment to Kentucky and Beyond

Through our partnership with Ducks Unlimited, Logan Aluminum is able to help improve waterways in Kentucky and throughout the region. Ducks Unlimited is focused on preserving and remediating wetlands across the nation to provide healthy habitat for waterfowl and other wildlife. Logan is no stranger to the power of wetlands, as our own constructed wetlands have been treating our water for over 30 years! As water meanders through the reed and sedge of our wetlands, trace minerals are removed, pH is stabilized, and nitrogen and oxygen levels are maintained through a combination of physical, chemical, and biological processes. This is just part of what makes wetlands so key to our ecosystems. As an organization, Ducks Unlimited conserved over 800,000 acres in North America in FY24.

In 2023, Logan Aluminums supported the Big Rivers Initiative, with a focus on the Kentucky program. This initiative impacted 367,668 acres across the Big Rivers landscape and included conservation activities in the Ballard Wildlife Management Area, right here in Kentucky! Logan appreciates the opportunity to support our waterways through our partnership with Ducks Unlimited!

Carbon Strategy

Phase 1	Phase 2	Phase 3	
Pursuing strategic partnerships to increase rail transportation.	Higher utilization of rail transportation.	Ongoing initiatives to identify and implement efficiencies (electric and fuel) in processes.	
Lowering energy intensity across the site through efficient practices.	Continue to collaborate with industry groups and peers to align with the adoption of emerging technologies.	Continue to assess opportunities for reducing scope 3 emissions (upstream and downstream).	
Developing strategic partnerships with technology innovators in carbon reduction and waste energy recovery.	Perform technical and economic feasibility assessments of preferred phase 1 technologies.	Implementation of carbon reduction technologies determined in phase 2 to be technically and financially viable.	
Developing systems to better monitor scope 1 emissions.	Developing systems to better monitor scope 2 and 3 emissions.		
Increasing visibility and discussion around scope 2 and 3 emissions.	Develop a comprehensive carbon intensity benchmarking strategy.		No significant progress
Pilot projects lowering scope 1 transportation emissions. (Hydrogen/electric powered industrial vehicles/equipment).	Implement any viable pilot projects for industrial vehicles to reduce scope 1 carbon emissions		Estimated Progress
Improving carbon literacy on a plant level to improve engagement and innovation.			Completed

Logan Aluminum launched our carbon reduction strategy in 2023 and we are still in the first phase of our three-stage strategy. In this year we have made progress on several fronts, and we continue to be open to new solutions as technology advances. We have investigated multiple avenues for reduction through new partnerships and technology research. While we understand potential strategies will change as new technology becomes available, these goals are representative of our overall path to a lower carbon future.

Our Partners

Logan Aluminum shows our commitment to stewardship through our alignment with more stringent standards for environmental action. Namely, we are certified with the Aluminum Stewardship Initiative (ASI) as well as ISO 14001.

ASI aims to create a global standardization for environmental performance and sustainability in aluminum. ASI provides a framework of requirements to ensure that the aluminum sector is making reduction progress at a rate that follows the 1.5C aligned pathway. This approach applies to all areas of the aluminum sector and is guided by industry knowledge and available technologies. This standard is ever changing to meet current capabilities and requirements. Logan's alignment adds additional assurance for environmental stewardship.

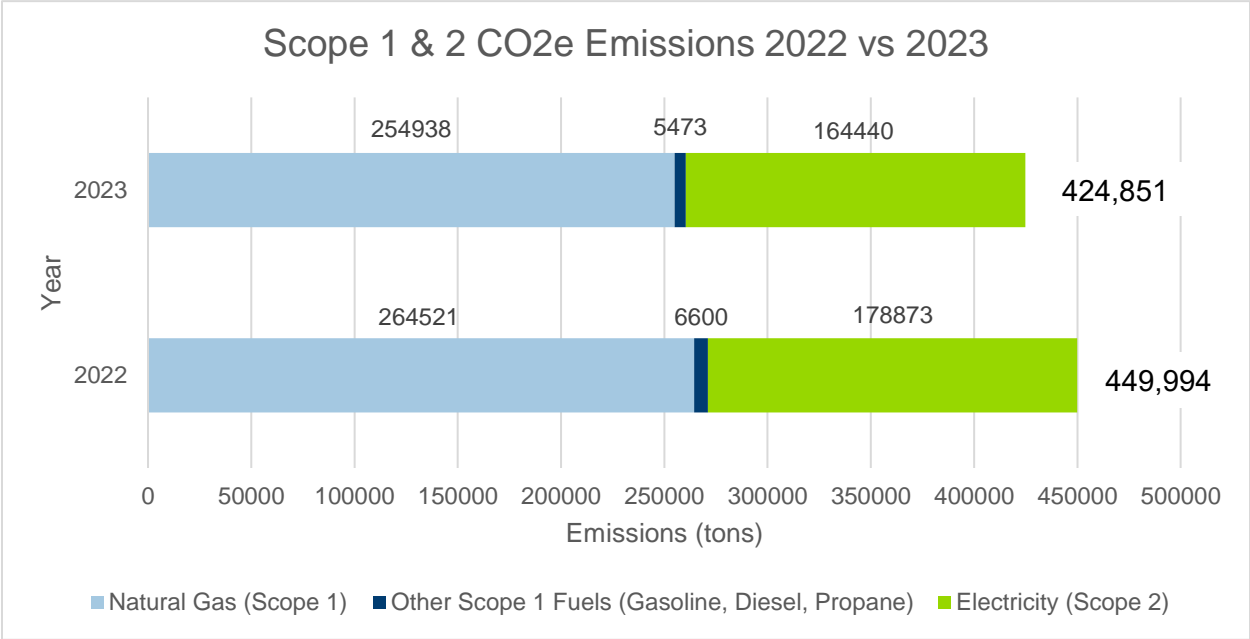
ISO 14001 focuses on developing strong Environmental Management Systems. Through implementation of best practices in management, we are able to better understand and predict the health of our environmental indicators, reduce our footprint, and improve legal compliance.

Logan Aluminum also collaborates and takes guidance from several key stakeholders when developing and implementing goals for decarbonization. This includes The Aluminum Association, the Metals Innovation Initiative, The International Aluminum Institute, and of course, our owners Novelis, Inc. and Tri-Arrows aluminum along with their customers.



Scope 1 & 2

Overview



Carbon Intensity: 0.351 lbs. of CO2e/ packed ton
8.7% decrease from 2022

*Calculations for 2023 GHG data verified through limited assurance from a third-party auditor (Intertek).

Scope 1 Details

In 2023, Logan Aluminum pursued projects and information around several facets of carbon reduction. Because of Logan’s continual growth, analyzing our carbon intensity (as a function of CO2e output per production weight) is an important metric to determine our progress toward reduction. We are pursuing projects that both efficiently increase our output, as well as projects that decrease fuel consumption, which work together to improve this metric. These include projects that reduce natural gas consumption in the largest users, projects that aim to reduce metal waste within the process, projects that increase productivity with minimal fuel increases, and projects to reduce mobile fuel usage. In addition to these, Logan has participated in research around energy reduction and investigated potential carbon reduction technologies which would be up for consideration at a later stage in our strategy.

Recovery

One of the major priorities for reduction within secondary aluminum processors is the reduction of runaround scrap, or scrap created within our plant process and downstream. These metal losses become 'pre-consumer' scrap, meaning that while they are able to be melted down again and reprocessed, the metal is being handled more as a result, which attaches a higher carbon footprint to the product. There are inherent losses at every level of production, whether that be due to unplanned malfunction, or sizing requirements. However, decreasing these losses where possible can decrease both handling and machine time in certain cases.

In 2023, there were multiple wins for our 'recovery' goals, where we manage reduction of losses between processes. This includes increased automation in our Hot Mill, which allows metal movement between mills to occur in a more streamlined and predictable fashion. This decreased occurrence of a known malfunction that could lead to a high amount of scrap production.

Automation is not the only solution; it also requires attention and care by our workers to closely follow procedure. The diligence of Cold Mill operators and process teams was greatly seen this year. By working to minimize excess metal, as well as closely monitoring gauge efficiency, the Cold Mill did very well against their recovery goals!

Mobile Fuel Sources

Logan has continued to investigate options to reduce our fuel consumption due to mobile equipment, especially fork trucks. The primary objectives in reducing fuel use are to decrease fork truck traffic by investigating alternate transportation options (such as automation), to decrease double handling of materials, and to implement feasible alternative fuels, such as hydrogen or electric powered options. Progress has been made toward trialing or pursuing several preliminary solutions; these are expected to occur over the next few years.

Logan Aluminum also celebrated our first electric addition to our onsite fleet. With the introduction of a Ford F-150 Lightning, Logan has made a big step in using and investigating the capabilities of low carbon options. Electric vehicles produce zero scope 1 emissions and are one method that Logan is pursuing to decarbonize our fleet.

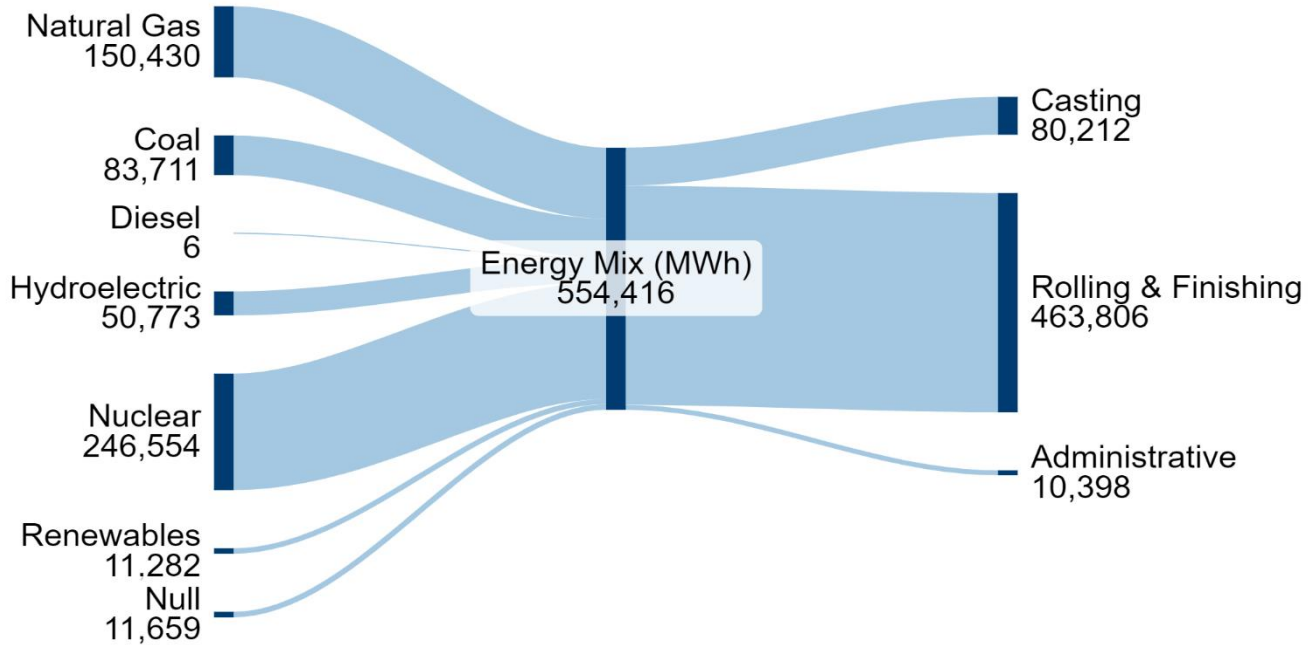
Natural Gas Strategy

Logan Aluminum's largest contributor to scope 1 emissions is natural gas combustion for heating and melting processes. We investigated many avenues to reduce this contribution and aim to have projects relating to the most viable options. Feasibility studies were completed to look at options for waste heat recovery, logistical changes in staging, as well as systems for increased burner efficiency. For Logan currently, the options which seem to be most fruitful in this stage are to continue to optimize the efficiency of high users of natural gas, which will decrease fuel usage at the source. New projects to better meet this goal are staged to begin in 2024.

Logan has also committed to staying aligned with emerging technologies and aims to reinvestigate any new systems for heat recovery or carbon capture and implement those options when they reach viability.

Scope 2 Details

Site Electricity Flow 2023



TVA Provided

CO₂ Rate:

587.15

lbs. CO₂/MWh

5.8% Decrease

From 2022

Lower than

E-GRID regional

and national

averages from

2022

Logan Aluminum receives our energy mix from Tennessee Valley Authority (TVA). TVA continues to work to lower their carbon rates, and these improvements have a positive impact on our scope 2 emissions. Their ultimate goal is to reach net-zero carbon emissions by 2050.

In contrast to our natural gas usage, the majority of our electricity usage is consumed in the rolling process. Similar to our strategies for scope 1 reduction, project teams analyze methods to decrease electricity usage where possible. These systems can be more difficult to retrofit to for increased efficiency, however, projects that work to create more efficient workflow through equipment can have an impact on our scope 2 intensity. Electricity reduction is a priority for our upstream facilities who create prime aluminum. Their focus on using green energy in turn improves our scope 3 emissions.

Logan has also begun to investigate alternative powering options where possible. In outdoor areas where solar power can be utilized, new solar powered additions can be found. Solar energy already powers several things at Logan, from lights to safety equipment. With these initial trials going well, we expect to see more solar powered additions in the future.

Scope 3

Scope 3 impact encompasses all processes upstream and downstream of our production. This includes everything from the carbon associated with upstream production of purchased goods, to transportation into and out of our plant, to end-of-life treatment of any products or byproducts leaving our plant. This number can quickly become spanning and unmanageable. To combat this challenge, Logan has started by prioritizing two Scope 3 impacts that can be both measured at our plant level, and that have substantial impacts: transportation and aluminum input.

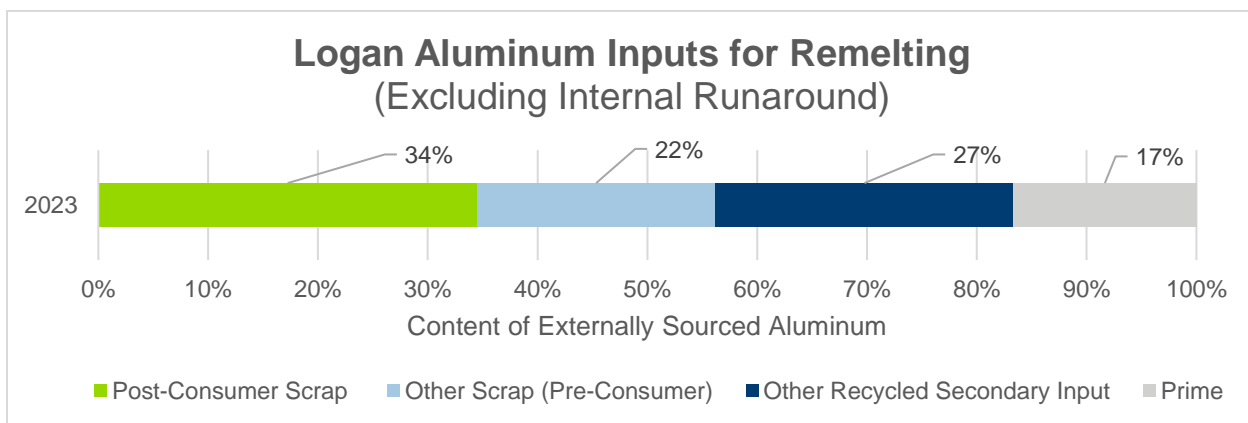
Transportation

In 2023, the initiative has been taken to increase rail transportation in the near future. From working with our partners to seeking case-by-case solutions and looking internally at what logistical changes we can make; Logan hopes to implement improvements that would in turn improve our Scope 3 impact.

According to EPA methods, each ton-mile traveled on rail produces 87% less CO₂e than freight shipment. With Logan receiving shipments every day from locations across the nation and internationally, the potential impacts are substantial. Shipping by rail is more efficient, cost effective, and environmentally friendly, so great things are on the horizon for Logan Aluminum with this transition!

Aluminum Inputs

When looking at Logan’s scope 3 impact, as well as aluminum processes across the world, one factor stands above all others: recycled versus primary aluminum content. The process of creating new aluminum (or ‘prime’), is extremely carbon intensive and includes the mining of bauxite and subsequent refining and electrolysis to create aluminum. Recycled aluminum uses 95% less energy than primary aluminum production, and because of this, increased usage of recycled content in remelting processes can greatly decrease our scope 3 impact. In addition to decreasing reliance on prime it is necessary for prime suppliers to find ways to decrease their impact through usage of renewable energy and increased efficiency. Logan has committed to seeking and promoting these low-carbon prime alternatives.



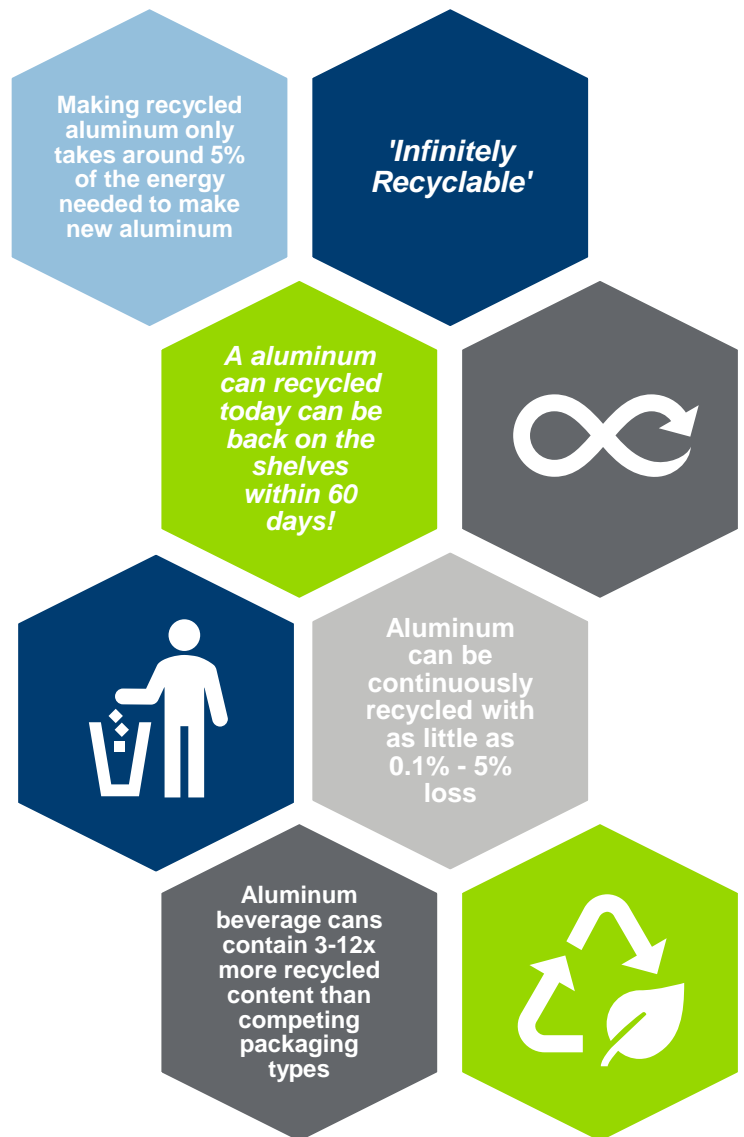
Close the Loop with Recycling

Logan Aluminum aims to increase our usage of recycled aluminum content and decrease the need for primary aluminum. However, demand for aluminum products is ever-increasing, and aluminum recycling rates in the United States, the Southeast, and Kentucky in particular are slow to follow. According to a study performed by Ball Corporation, Kentucky's recycling rate falls around 16%. In a state where the aluminum industry has so much influence, these rates are far too low, and Logan Aluminum, along with many partners across the state and nation, aims to remedy this issue.

Through educational means and infrastructure support, a Logan team has led our initiative to 'Close the Loop with Recycling' in our local communities. In addition to fostering partnerships to create recycling programs for local schools and events, Logan representation can also be found advocating for increased recycling infrastructure across the state.

By raising awareness and providing tools to our children, we can instill lifelong recycling habits and recover this valuable resource. Aluminum is virtually infinitely recyclable and it's our goal to keep every can out of the landfill.

- Laura Haury,
Environmental Engineer



Logan County Schools

In 2023 Logan Aluminum supported 4 schools in the Logan County school district with establishing recycling infrastructure for students. Educating students on the importance of recycling is a major priority for Logan, and this was shown through our recycling team’s participation in multiple outreach events, the introduction of recycling collection bins into schools, and assistance with collection logistics. In our first year establishing this program, Logan recycled an estimated 32,000 cans from local elementary and middle schools during their school year. This is only the beginning, and we hope to see many more cans recycled in the future!

Logan Aluminum also supported Lewisburg Elementary School in their participation in the Million Cans Recycling Contest, hosted by the Can Manufacturers Institute and Scrap University Kids. This initiative collected 1.3 million cans in the past school year. Lewisburg Elementary’s great work led them to win second in the competition with a whopping 30,000+ cans recycled!

Our Work Community

Logan Aluminum also saw the need for increased access to recycling for our own team members and their communities. Logan introduced the option for employees to check-out mobile recycling bins whenever they see the need for recycling access at their local events and establishments. These bins have now been utilized at team events, local events, and beyond!

Western Kentucky University

Logan has also continued to support recycling at WKU events throughout the year. Through our partnership with [Hope House](#), cans from games and events are collected and taken to our plant for recycling, closing the loop in LESS than 60 days! This partnership has continued to grow and increase awareness around recycling and aluminum alternatives, such as Ball aluminum cups!

