GRAFTECH INTERNATIONAL LTD.

SUSTAINABILITY REPORT

2023

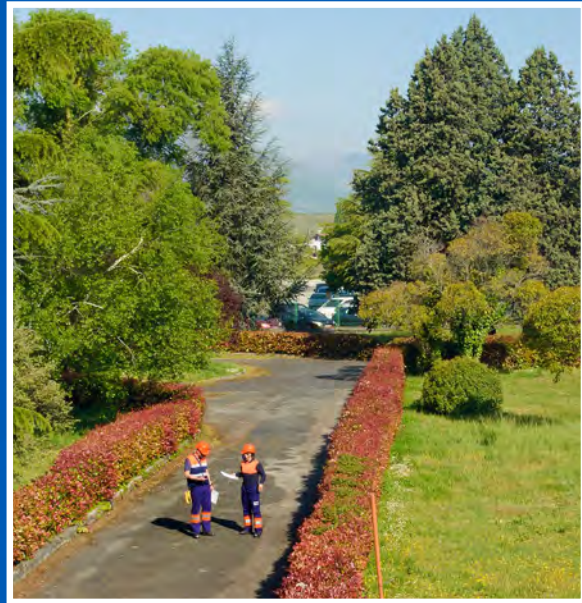**GrafTech**
International

ABOUT THIS REPORT

We are pleased to present our 2023 GrafTech Sustainability Report (the "Report"), a continuation of our commitment to sustainability reporting. This Report features environmental, social, and governance ("ESG") efforts and initiatives related to GrafTech International Ltd. and its subsidiaries (collectively, "GrafTech," the "Company," "our," or "we").

The disclosures in this Report provide historical company information and data covering 2023, unless otherwise noted. We use the Global Reporting Initiative ("GRI") and Sustainability Accounting Standards Board ("SASB") frameworks to guide the disclosure of our data. In some cases, data and information related to corporate responsibility and sustainability priority areas may include programs and activities underway or introduced in 2024.

The Report has undergone an internal review process, including executive and subject matter expert ("SME") reviews. We welcome feedback and questions about this Report. Please direct all questions and feedback to sustainability@GrafTech.com.

CONTENTS

GRAFTECH AT A GLANCE

GrafTech is a leading manufacturer of high-quality graphite electrode products essential to the production of electric arc furnace ("EAF") steel and other ferrous and non-ferrous metals. With over 135 years of experience in graphite- and carbon-based solutions, we have a competitive portfolio of low-cost, ultra high-power graphite electrode manufacturing facilities, including some of the highest capacity facilities in the world. For more information on our business and products, please visit our **corporate website**.

Founded
1886

Headquarters
Brooklyn Heights, Ohio

More than
1,200
employees as of December 31, 2023

Our Operations

North America

Brooklyn Heights, Ohio, U.S.
Corporate Headquarters

Monterrey, Mexico
St. Marys, Pennsylvania, U.S.[1]
Graphite Electrode Manufacturing Facility, Sales & Service Subsidiary

Port Lavaca, Texas, U.S.
Seadrift Petroleum Needle Coke Manufacturing Facility

South America

Salvador, Brazil
Machine Shop, Sales & Service Subsidiary

Africa

Alberton, South Africa
Sales & Service Subsidiary

Europe

Bussigny, Switzerland
Global Sales and Production Planning Office

Calais, France
Pamplona, Spain
Graphite Electrode Manufacturing Facility, Sales & Service Subsidiary

Milano, Italy
Ratingen, Germany
Sheffield, United Kingdom
Sales & Service Subsidiary

Asia Pacific

Hong Kong, China
Service Subsidiary

Chiba-Shi, Japan
Sales & Service Subsidiary

Middle East

Dubai, United Arab Emirates
Sales & Service Subsidiary

SUSTAINABILITY AT GRAFTECH

Sustainability of Steel

GrafTech plays a vital role in the global transition to a more sustainable future of steel manufacturing. Steel production is energy intensive, with total direct emissions from the steel sector accounting for 7–11% of total greenhouse gas ("GHG") emissions.[2] However, when compared to the traditional basic oxygen furnace steelmaking process, EAF steel production is more energy efficient and has a smaller environmental impact, producing 75% less carbon dioxide ("CO_2") emissions.[3]

Graphite electrodes are essential for EAF steelmaking, as they are currently the only known, commercially available industrial products with the electrical conductivity and ability to sustain the high heat levels of EAF steel production. As a result, EAF steel manufacturers require a reliable supply of high-quality graphite electrodes to melt scrap metal, iron ore-derived products, or other raw materials used to produce steel or other metals. Our electrodes are manufactured using primarily petroleum needle coke and coal tar pitch – by-products derived from the oil and metallurgical coal coking processes respectively – which leverages materials that may otherwise go to waste. In addition, EAF steelmaking is a sustainable model for recycling scrap metal into new steel, which is completely and infinitely recyclable at the end of its useful life.[3] When our products are used in EAF steelmaking, we directly contribute to the decarbonization and sustainability of the steel industry.

Our Commitments

In May 2023, GrafTech joined the United Nations Global Compact, a voluntary leadership platform regarding responsible business practices. Since joining, we are advancing our reporting on human rights issues, including freedom of association and working conditions.

In addition, in 2023, we completed our third EcoVadis submission. We are proud to report our EcoVadis score improved in 2023 by 18%, as compared to 2022, resulting in a ranking at the 64th percentile and a Bronze medal. Our largest improvement was the result of our efforts in sustainable procurement.

For more information on our sustainability strategy, goalsetting, and governance, including an overview of our materiality approach and key topics, please see the **ESG Data** section.

1   While maintaining the capability to produce graphite electrodes and pins, production activities at St. Marys, Pennsylvania were indefinitely suspended in 2024, with the exception of graphite electrode and pin machining.

2   J.P. Morgan Analyst Report on Steel: Structurally Improved Sector, But Cyclical Headwinds Lie Ahead from May 23, 2023

3   Steel Manufacturers Association

> **In 2023, we continued to make progress regarding our ESG initiatives. As a leading provider of a product that is mission critical to our customers, GrafTech is proud of our ongoing contributions towards the sustainability of steel. As we continued to execute our ESG strategy in 2023, key initiatives included investments to capture heat to reduce fuel consumption at our production facilities and a significant expansion of our engagement within local communities in the areas where we operate. Further, in 2023, GrafTech joined the United Nations Global Compact, a voluntary leadership platform for the development, implementation, and disclosure of responsible business practices.**

Timothy K. Flanagan
CEO and President
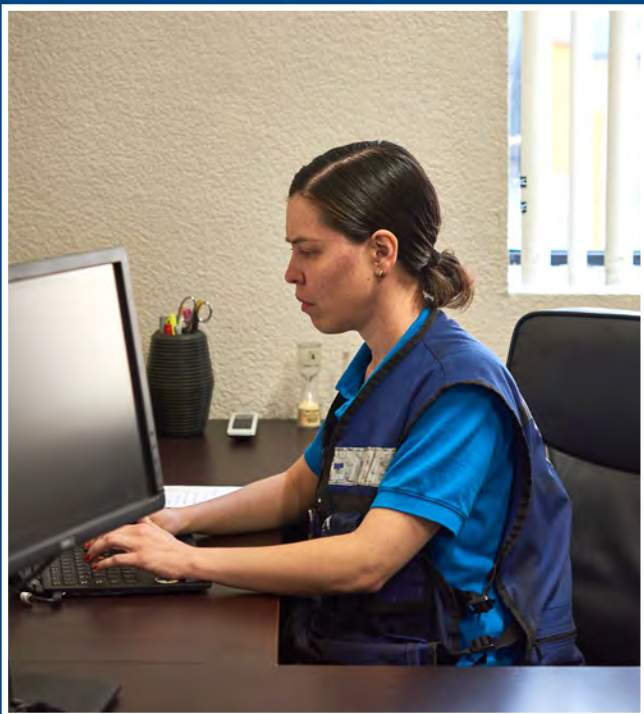
GOVERNANCE

BUSINESS ETHICS AND CORPORATE GOVERNANCE

GrafTech is a publicly traded company, listed on the New York Stock Exchange ("NYSE") under the symbol EAF, and complies with applicable NYSE listing and governance standards and Securities and Exchange Commission ("SEC") rules and regulations.

Our Board is committed to strong corporate governance practices and dedicated to ensuring that GrafTech is managed for the long-term benefit of our stockholders and other stakeholders. Our success is only possible with the leadership of our Board, hard work of our global team, and our shared commitment to upholding our core values of Safety, Environment, and Quality ("SEQ"), which focus our attention on creating a safe work environment for all employees, acting as environmental stewards, and delivering superior product quality.

The Board and its committees meet throughout the year and engage management to ensure the Board is informed regarding the Company's activities, operating plans, and initiatives, including our sustainability and ESG efforts. The Board also oversees the management of GrafTech's risk exposure, including understanding the Company's most significant risks and ensuring that management responds appropriately to make risk-informed strategic decisions.

At GrafTech, ethical conduct is a fundamental principle. Our Code of Conduct and Ethics (the "Code") serves as the foundation for these values and guides our team in making thoughtful and well-informed decisions. The Code applies to all employees, directors, and officers of GrafTech. All employees are provided with formal ethics and compliance training. In 2023, 99% of employees completed training on our Code. In addition, we also provided training on anti-bribery and corruption; trade compliance; anti-harassment; diversity, equity, and inclusion; and ESG.

As data breaches continue to be a concern for many global companies, it is critical for GrafTech to maintain data security and ensure data privacy for the information

we store related to our business, employees, suppliers, and customers. Our Audit Committee is responsible for reviewing the information technology security program and reporting to the Board on results of security assessments and controls. We offer frequent training to employees and engage third parties to evaluate and test our controls related to data security.

Sustainability is fundamental to GrafTech's business strategy and culture. Ultimate responsibility for sustainability is held by our ESG Steering Committee, which includes our senior leadership team[4] and members of our health, safety, and environmental protection ("HS&EP"), legal, operations, communications, and commercial teams. The Committee is responsible for defining our ESG mission and developing, implementing, and overseeing the company-wide ESG strategy.

The ESG Steering Committee is supported by our ESG working groups, which are composed of cross-functional SMEs and may include representatives from HS&EP; engineering; research and development ("R&D"); legal; finance; communications; procurement; human resources; and commercial. The working groups are responsible for developing and implementing programs and initiatives that support our ESG strategy, including tracking and reporting on key performance indicators ("KPIs"); providing data and support for ESG-related disclosures included in our sustainability reporting; and identifying and prioritizing opportunities and strategies to improve our ESG performance.

For more information on our corporate governance practices, please see our most recent Proxy Statement.

4 Comprised of the Chief Executive Officer and President; Interim Chief Financial Officer and Treasurer; Executive Vice President, Chief Operating Officer; Chief Legal Officer and Corporate Secretary; Vice President, Human Resources; Vice President, Investor Relations and Assistant Treasurer, and Senior Vice President, Commercial and Customer Technical Service

ENVIRONMENT
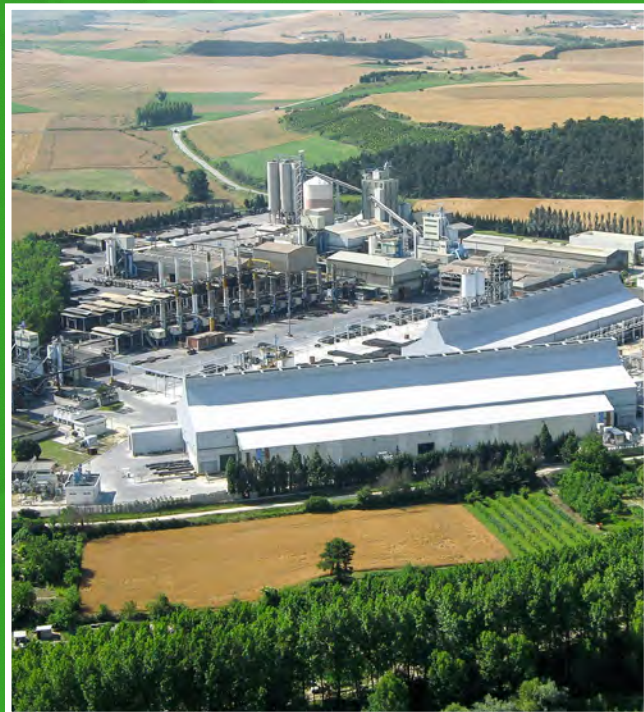
ENVIRONMENTAL MANAGEMENT

GrafTech's operations can have inherent impacts on the surrounding environment. For these reasons, we have identified energy conservation, GHG reductions, waste recycling, and water management as key strategies for improving our environmental stewardship.

GrafTech maintains environmental management systems ("EMS") at our manufacturing sites to identify risks and opportunities related to our environmental priorities, measure our responses, and, ultimately, reduce our impacts. To further advance our EMS, GrafTech developed an overarching **Environmental Policy** in early 2023 that outlines our commitment to minimizing our impact on the environment.

We recognize the International Organization for Standardization ("ISO") 14001 standard as best practice for environmental management. Our Calais, France and Pamplona, Spain sites maintain the ISO 14001:2015 certification and the ISO 50001:2018 certification for energy management. In 2023, our Pamplona site passed its three-year third-party ISO recertification audit. We plan to conduct this audit for Calais's ISO 50001 in 2025 and for Calais's ISO 14001 in 2026.

Each site is subject to periodic audits of its EMS. Each year, we alternate between health and safety and environmental audits so that we can conduct a more thorough analysis focused on each topic. Our corporate HS&EP group conducts these audits, which are supported by third parties with expertise in local laws and regulations.

Environmental professionals at each site are responsible for overseeing regulatory compliance, tracking progress, and reporting on established targets to the senior leadership team monthly. We are actively working with each of our facilities to create a roadmap for reducing their environmental impact.

In 2023, we reduced our production volume at our operating facilities to align with our demand outlook. As a result, our associated energy consumption, Scope 1 and 2 GHG and air emissions, water withdrawals, and waste generated experienced a decline as compared to 2022.
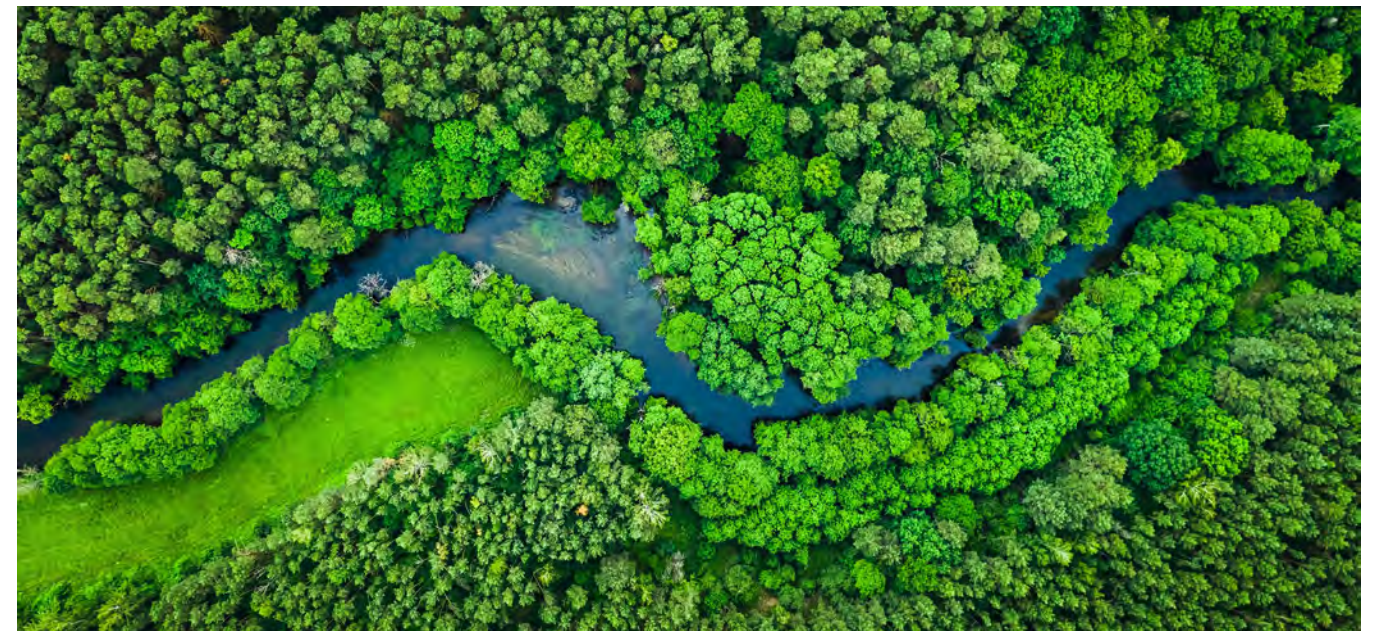
CLIMATE AND ENERGY

At GrafTech, we recognize climate impacts and energy reduction as key issues for our stakeholders, especially our communities and customers, and tackling these challenges presents an opportunity to create efficiencies in our business. As such, energy management is fully integrated into our operations. We continually evaluate and improve upon our internal climate and energy management programs, and we have SMEs at each site to identify projects that align with our overarching climate and energy strategy.

We are taking steps to transparently measure, manage, and identify opportunities to reduce energy consumption and GHG emissions generated from our manufacturing process and throughout our value chain in the short-, medium-, and long-term. In 2023, we also began engaging our suppliers to better understand our Scope 3 emissions and the energy intensity of our supply chain.

Energy Efficiency and Optimization

Finding opportunities to increase efficiencies, optimize our operations, and, as a result, reduce energy use are each important aspects of our overall climate strategy. At several of our locations, we have implemented an "off-peak hours" strategy where energy-intensive operations are conducted at times when the local electrical grid is experiencing less demand from the surrounding community. This strategy has reduced energy costs and increased local energy availability during periods of peak demand. In 2023, our Calais operation optimized its baking schedule and reduced the number of furnaces needed to maintain production volume, ultimately reducing natural gas consumption.
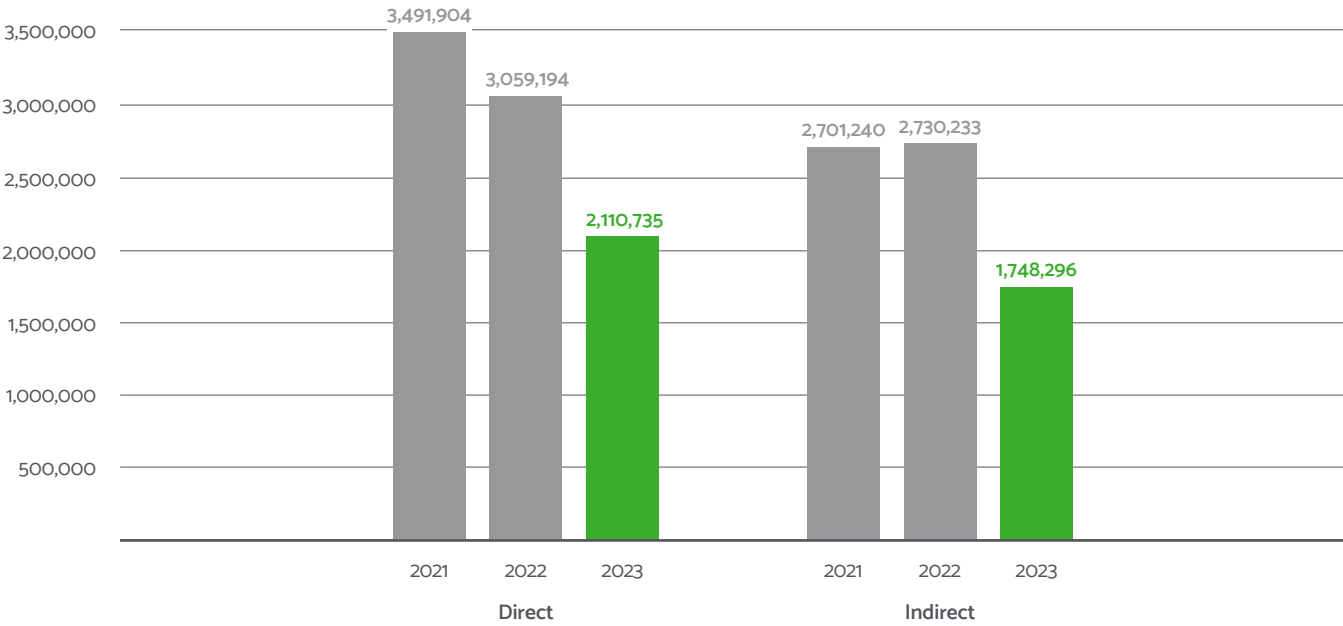
Heat Recovery, Renewable Energy, and Electrification

We continue to see success from the implementation of our Pamplona heat recovery system. The system has reduced natural gas consumption and GHG emissions every year since installation. The system was expanded to six furnaces in 2022, and a second system was installed in 2023 that will be fully functional in late 2024. This will complete the process of tying all of Pamplona's first bake furnaces into heat recovery systems.
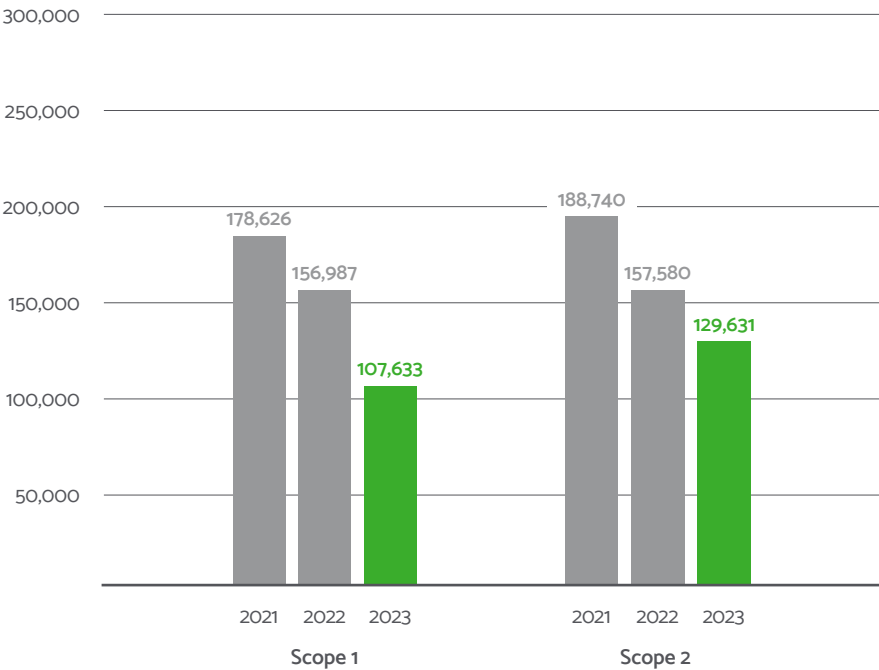
We continue to investigate opportunities to further diversify the energy mix at our plants, incorporating more alternative and renewable sources and electrifying equipment where possible. Both Calais and Pamplona are currently engaging third-party firms to determine the feasibility of on-site solar panels, which could be used to generate on-site electricity. Pamplona is procuring 10% of its electricity from renewable energy sources through the use of Guarantee of Origin certificates. Our Monterrey site has contracted with the local utility provider to obtain its electricity from nuclear energy.

Calais recently purchased its first large electric forklift. The forklift, which replaced an older diesel-powered model, will reduce mobile fuel consumption on site. GrafTech further supports access to electric vehicles by providing employee charging stations at both Pamplona and Calais.

In 2023, our Scope 1 and 2 GHG emissions intensity was higher than in previous years, primarily due to a decrease in production volume. Looking ahead, we anticipate our emissions intensity performance to improve over time, primarily driven by the implementation of our previously announced manufacturing footprint optimization plan, benefits from our Pamplona heat recovery system, and projected increases in production volume.

Total Energy Consumed[5] (GJ)

Scope 1 and 2 GHG Emissions[6] ($MTCO_2e$)

Scope 1 and 2 GHG Emissions Intensity[7, 8]

($MTCO_2e$/MT production volume)

5 Energy usage includes data from our manufacturing facilities (Calais, France; Pamplona, Spain; Monterrey, Mexico; St. Marys, Pennsylvania; Salvador, Brazil; and Seadrift), headquarters campus, and the Bussigny, Switzerland office. "GJ" refers to gigajoule.
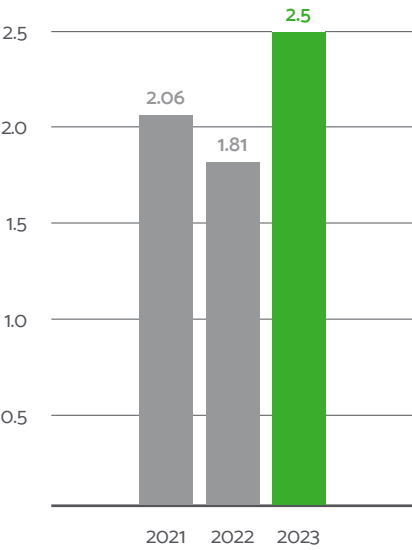
6 Scope 1 GHG emissions are direct emissions from on-site fuel combustion. Scope 1 emissions include our manufacturing facilities and our headquarters campus. The baking process has been identified as the primary driver for Scope 1 emissions. Scope 2 GHG emissions are indirect emissions resulting from the generation of electricity, heat, or steam purchased from a utility provider. Scope 2 emissions include our manufacturing facilities, headquarters campus, and Bussigny, Switzerland office. The graphitizing process has been identified as the primary driver for Scope 2 emissions. Both Scope 1 and 2 emissions are calculated using the GHG Protocol methodology.

7 GHG emissions intensity is set with an operational boundary of the four graphite electrode manufacturing plants (Calais, France; Pamplona, Spain; Monterrey, Mexico; and St. Marys, Pennsylvania).

8 Scope 1 and 2 GHG emission intensity is measured as metric tons ("MT") of CO_2e divided by the MT of graphite electrodes produced (production volume) in the reporting year. Production volume for 2021–2023 are as follows: 2021 = 165,000 MT; 2022 = 157,000 MT; 2023 = 88,000 MT.
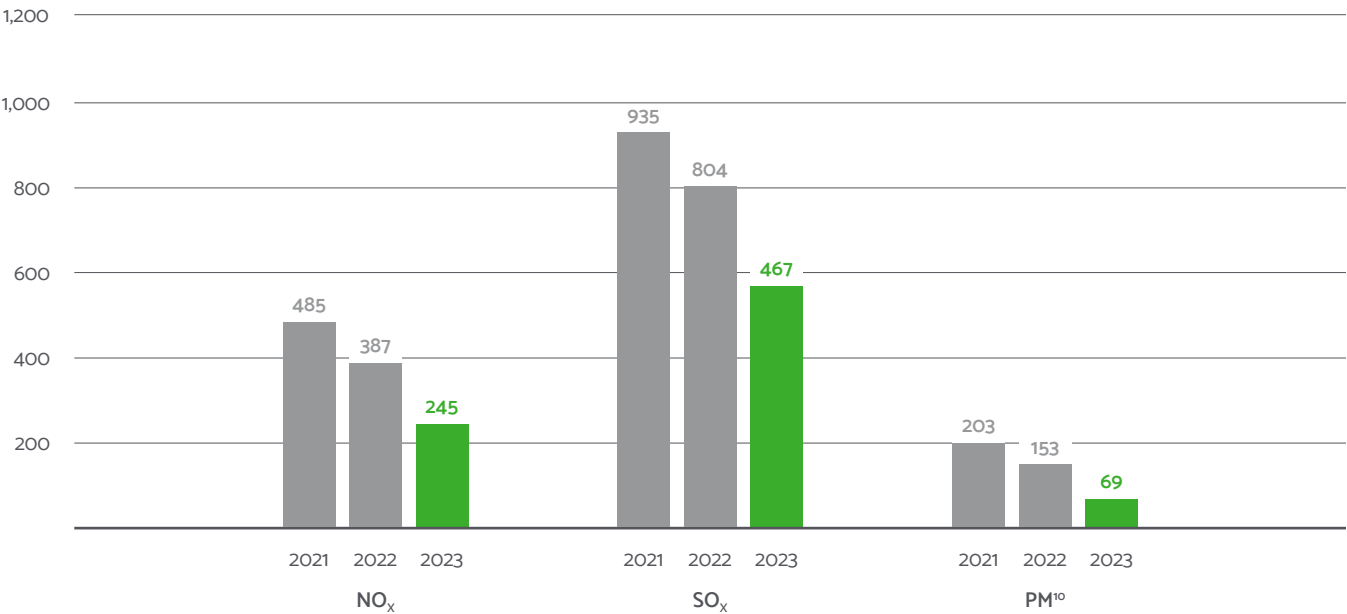
AIR EMISSIONS

At GrafTech, we continue to prioritize and implement projects designed to reduce air emissions generated by our manufacturing processes, including nitrogen oxides ("NO_x"), sulfur oxides ("SO_x"), and particulate matter ("PM"), to minimize our impact on the local air quality.

Each site manages, tracks, and works to reduce emissions generated by our manufacturing processes. These programs are monitored alongside our climate and energy initiatives and are subject to the same management structure as our other environmental programs.

In 2023, we fully outfitted our furnaces in Calais with equipment that increases air flow in the furnaces, resulting in a more thorough reduction of emissions generated during the baking process. This process improvement helps GrafTech more effectively manage air emissions and minimize our impact on the local air quality, and we are looking to implement it at our other sites.

WATER

We recognize water is a critical resource to our local and global communities. Because our manufacturing processes can be water-intensive, we have developed effective programs for capturing and treating water for reuse, including closed-loop systems and on-site wastewater treatment plants.
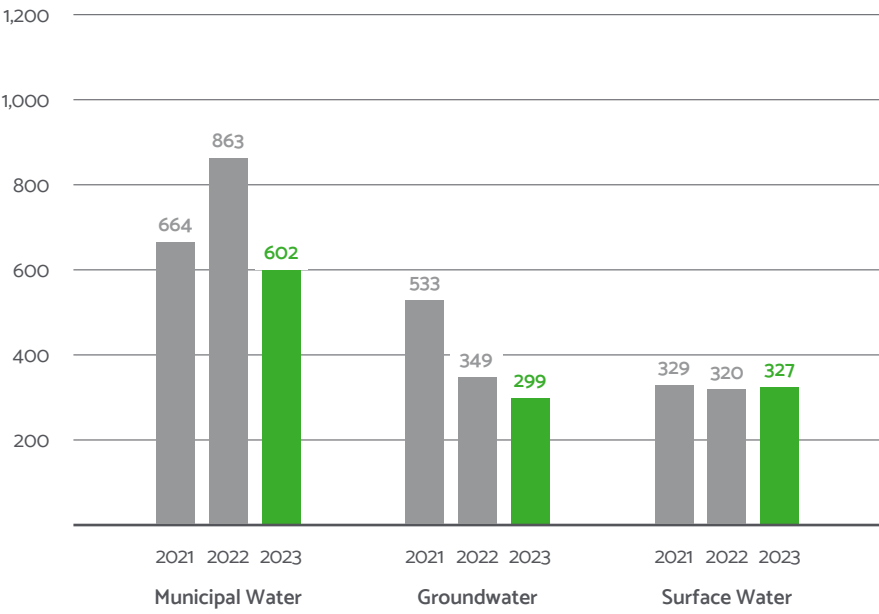
To manage water use, each manufacturing site is required to maintain a surface and groundwater protection program, including practices for monitoring water consumption, withdrawal, and discharge and wastewater compliance. Water usage data is tracked monthly and reported during the site's business review meetings. Employees are trained on best practices for water usage.

Pamplona and Calais have established strong on-site recycling and reuse programs. In 2023, the programs recycled a combined 451 megaliters ("ML") of water. Both sites are currently considering expansions to their recycling programs, including incorporating methods to prevent loss due to evaporation.

Keeping our water impact low has become particularly important at our Monterrey site, which is in a high water-stress area.[11] Monterrey utilizes a water metering and leak detection system to track water usage, among many other efforts.

Air Emissions[9] (MT)

Chart showing air emissions in MT for 2021, 2022, 2023:
- NO_x: 485 (2021), 387 (2022), 245 (2023)
- SO_x: 935 (2021), 804 (2022), 467 (2023)
- PM^{10}: 203 (2021), 153 (2022), 69 (2023)

Total Water Withdrawals[12] (ML)

Chart showing total water withdrawals in ML for 2021, 2022, 2023:
- Municipal Water: 664 (2021), 863 (2022), 602 (2023)
- Groundwater: 533 (2021), 349 (2022), 299 (2023)
- Surface Water: 329 (2021), 320 (2022), 327 (2023)

Recycled Water[13] (ML)

Chart showing recycled water in ML:
- 569 (2021), 649 (2022), 451 (2023)

9 Air emissions include data from our manufacturing facilities.

10 PM is reported as total PM at most sites. Some sites only report PM with diameters that are generally 10 micrometers and smaller (PM_{10}). These values have been included in the total PM emissions.

11 Monterrey, Mexico has been identified as a high water-stress area based on the World Resources Institute Aqueduct™ 3.0 water risk framework. Of GrafTech's operational footprint, 11% is located in regions with high or extremely high baseline water stress. Monterrey, Mexico comprises the entirety of that percentage.

12 Water withdrawals include data from our manufacturing facilities.

13 Recycled water includes only our Calais, France and Pamplona, Spain manufacturing facilities.
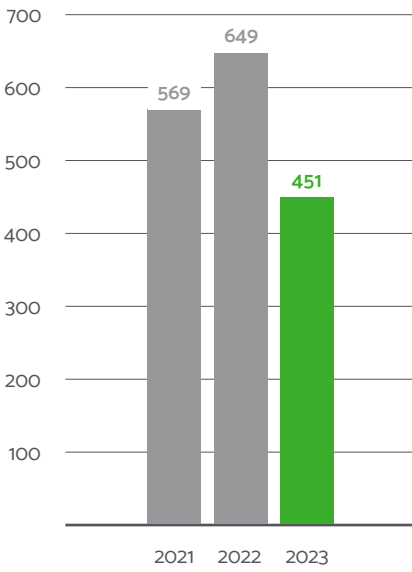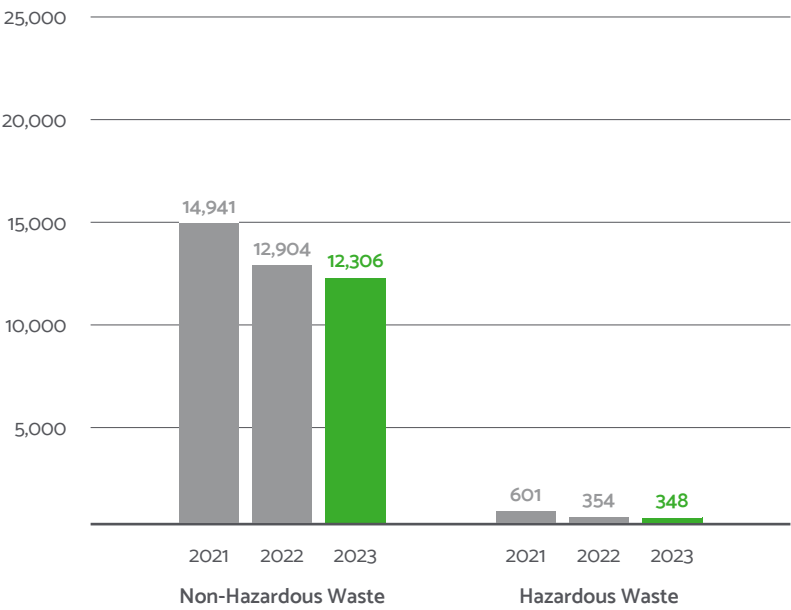
WASTE

GrafTech's full production cycle is reliant on by-products generated from our own operations and other key industries, including petroleum needle coke and coal tar pitch. Each site maintains an inventory of waste generation and disposal so we can monitor beneficial reuse of by-products and reduce environmental impacts. Whenever there are significant changes to waste inventory at any of our sites, we record explanations to ensure we identify anomalies and track opportunities to improve.
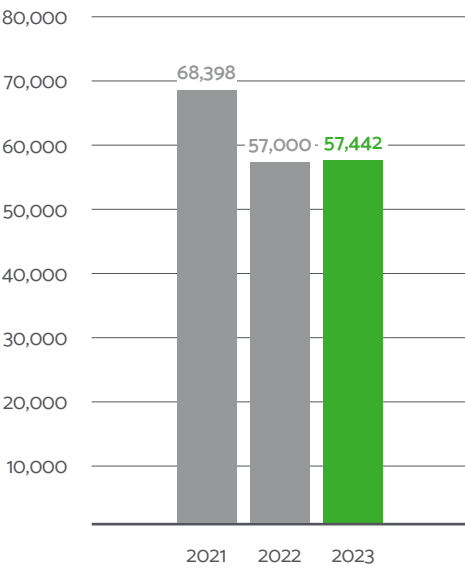
Over the last five years, we have reduced our generation of hazardous waste by more than 85% and non-hazardous waste by more than 39%.

Since 2021, we have reused or sold for beneficial reuse more than 180,000 MT of our graphite and spent metallurgical coke, equating to more than four times the volume of waste that we landfilled during that period. At our Seadrift site in Texas, we also recover incidentally generated hydrocarbon vapors during needle coke production, which resulted in more than 151,000 barrels of reusable gas oil and naphtha in 2023.
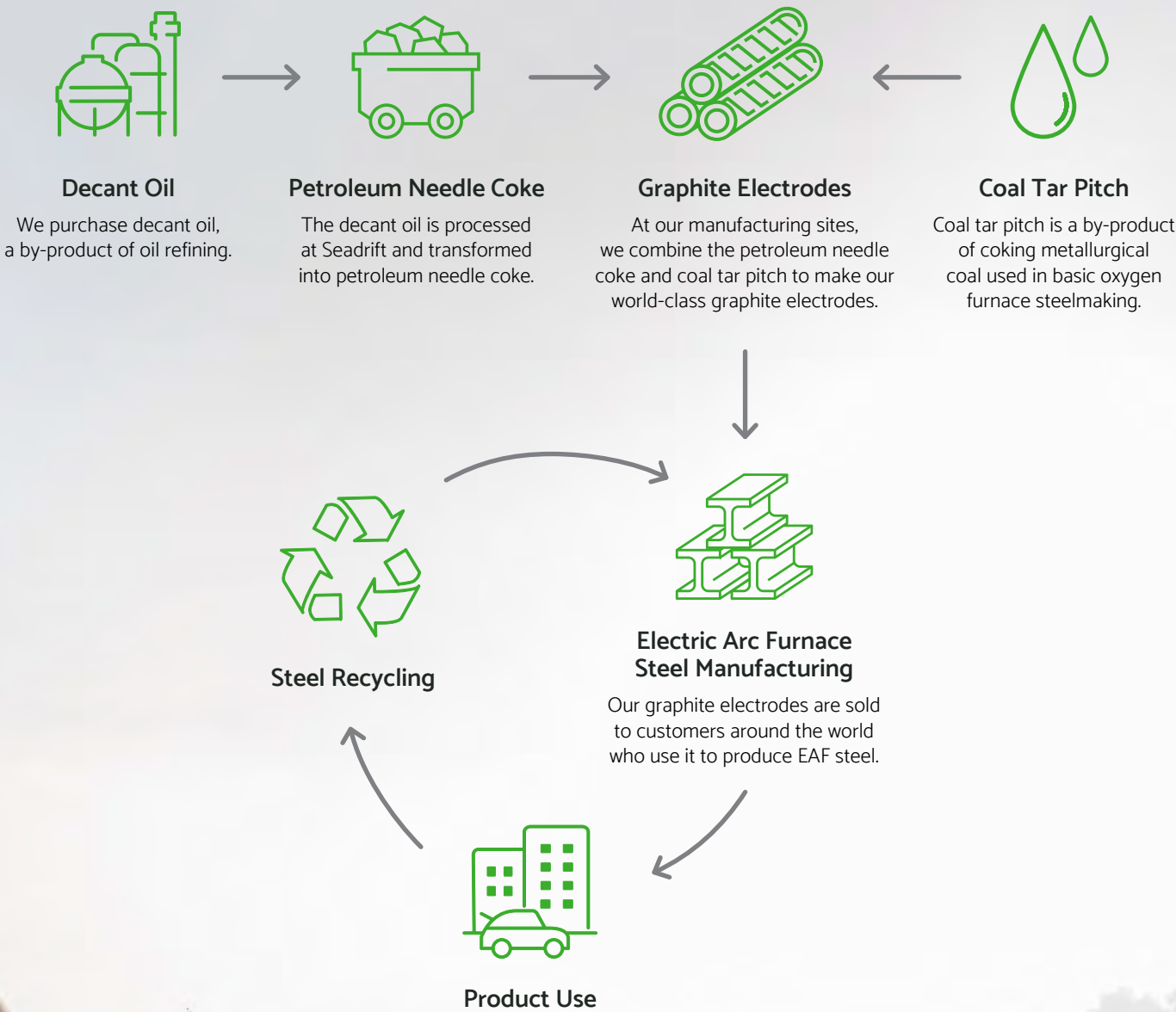
Waste Generated[14] (MT)

	Non-Hazardous Waste			Hazardous Waste		
	2021	2022	2023	2021	2022	2023
	14,941	12,904	12,306	601	354	348

Total By-Products to Reuse (MT)
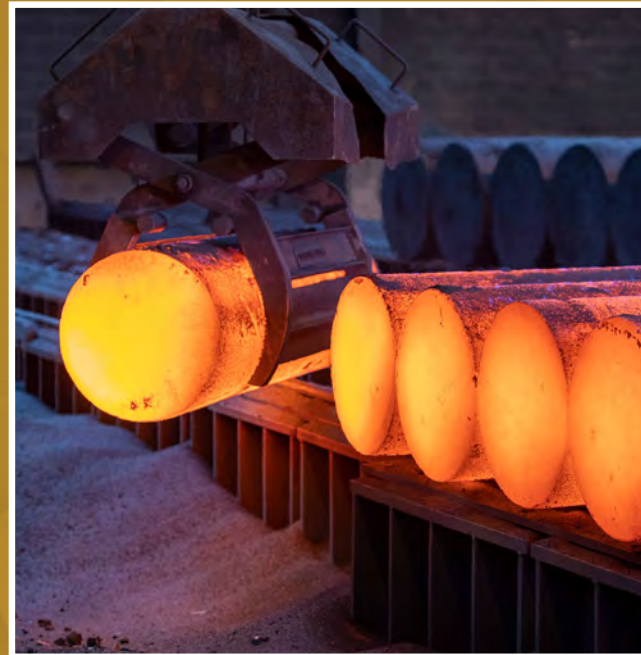

2021	2022	2023
68,398	57,000	57,442

14 Waste generated includes data from our manufacturing facilities.

How GrafTech Recycles Oil and Coal By-Products

Decant Oil
We purchase decant oil, a by-product of oil refining.

Petroleum Needle Coke
The decant oil is processed at Seadrift and transformed into petroleum needle coke.

Graphite Electrodes
At our manufacturing sites, we combine the petroleum needle coke and coal tar pitch to make our world-class graphite electrodes.

Coal Tar Pitch
Coal tar pitch is a by-product of coking metallurgical coal used in basic oxygen furnace steelmaking.

Steel Recycling

Electric Arc Furnace Steel Manufacturing
Our graphite electrodes are sold to customers around the world who use it to produce EAF steel.

Product Use

PRODUCTS AND CUSTOMERS

MATERIALS SOURCING

GrafTech is committed to responsibly sourcing and procuring goods and services from business partners that share our commitment to sustainable business practices.

As a global leader in high-quality graphite electrodes, the reliability of our supply base is imperative to our success. Our corporate and regional procurement teams purchase raw materials, monitor sourcing opportunities and supply chain risks, and maintain supplier relationships. The teams' objectives are to diversify, expand, and identify new materials sources while building strong supplier relationships that meet business demands. This work builds a robust and resilient supply chain, particularly important in recent years due to ongoing global geopolitical disruptions and our goal of reducing logistics-related costs and emissions.

We continue to look for opportunities to diversify production at each facility, which has enabled us to better meet local demand for our products with the added benefit of reducing transportation needs and, consequently, emissions from transportation. For example, following the temporary shutdown of our Monterrey facility in 2022, we diversified our pin production and machining capabilities. We successfully qualified our new electrode machining line at our St. Marys, Pennsylvania, facility, increasing the number of products that can be machined at this site. These changes enable a

more robust manufacturing system, ensuring that our value chain is not dependent on any single plant and, ultimately, making our overall operations more resilient.

Through our supply chain management program, we evaluate our supplier practices and engage with strategic suppliers. We utilize a supplier portal to provide our suppliers access to our Code of Conduct and Ethics for Suppliers and Contractors, Terms and Conditions, and Responsible Purchasing Policy. We also engage with a third party to assess our strategic suppliers' ESG programs. Together, these tools set clear expectations for our working relationships with suppliers, while also enabling GrafTech to better evaluate supply chain risks related to labor, human rights, environmental, and other ESG topics.

In 2023, we began implementing a digital procurement tool that allows suppliers to provide ESG-related and regulatory compliance data when they become a vendor. The tool also has the ability to link to our third-party ESG ratings system, which can be used to help inform how we prioritize supplier engagement.

Internally, we also provide training programs to our global procurement team on our Responsible Purchasing Policy. We saw a 100% training completion rate in 2023.
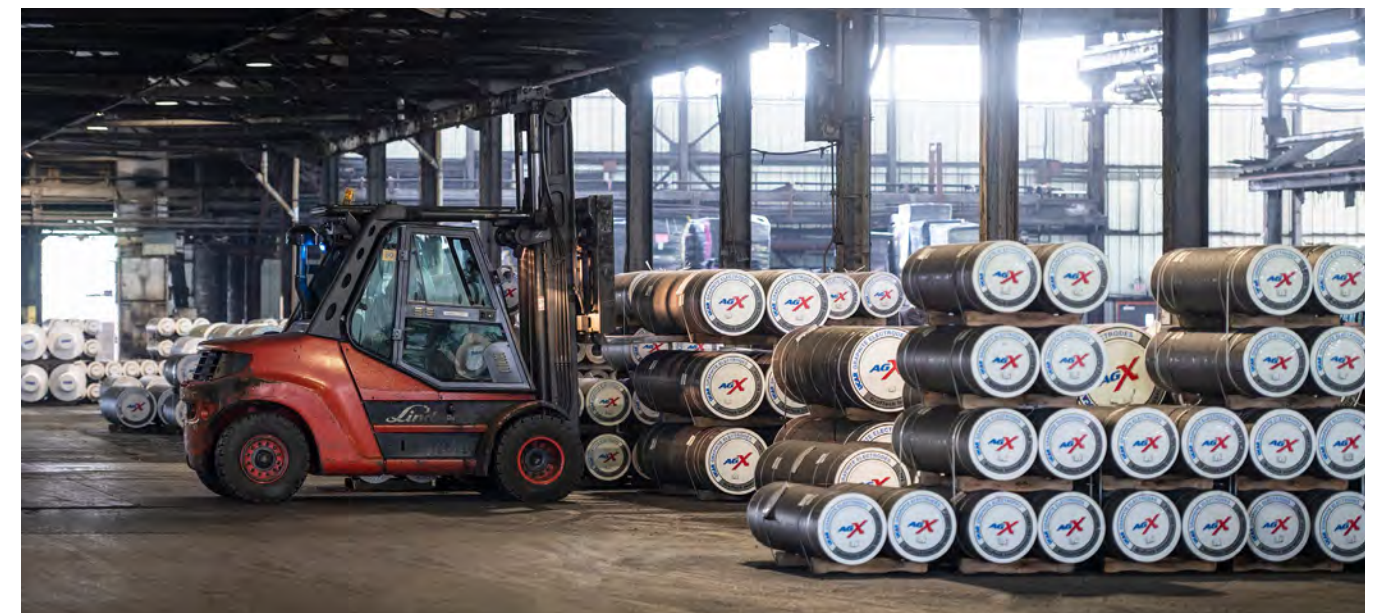
PRODUCT QUALITY AND STEWARDSHIP

The combination of GrafTech's highly engineered products and technical services helps our customers increase productivity and reduce costs, while simultaneously supporting our mutual sustainability goals. As such, product quality is front of mind as we innovate and develop new products and technologies.

Our quality assurance and global quality leaders evaluate and monitor quality from design and production to customer use. In alignment with our corporate quality policy, each site tracks and reports product quality KPIs to senior leadership, including scrap rate and number of customer quality issues. Our sites in Calais; Monterrey; Pamplona; Salvador, Brazil; and Seadrift are certified to meet ISO 9001:2015.

We're also working to produce lower carbon products and focus on optimizing performance, mitigating environmental and social risks, and understanding product lifecycle impacts. We continue to explore opportunities for reducing our dependence on fossil fuels, including ongoing exploration of alternative feedstock to conventional raw materials. Some of our efforts include:

- Using alternative raw materials instead of coal-derived ones in our resin-based joint locking system.
- Re-machining fractured graphite pieces to be reinstalled in the EAF electrode column, reducing waste and CO_2 emissions.

At GrafTech, R&D is fundamental to developing products that meet customer needs. Our technology roadmap guides our R&D investments in priority projects that push technological advancements and use materials with a smaller environmental footprint. GrafTech's R&D work expands our intellectual property portfolio and drives product and process innovation so that we remain a leader in the graphite electrode market.

We continue to collaborate with universities and manufacturers to expand our capabilities. In 2023, GrafTech was awarded a joint grant from the National Renewable Energy Laboratory to investigate the use of alternative raw materials for synthetic graphite production. The combination of our expanded internal testing and external relationships allow GrafTech to expand its trial capabilities and perform more testing and analysis to identify improved performance opportunities.

In 2023, our R&D team and manufacturing facilities began the process of expanding our production capabilities to enable the production of 800mm graphite electrodes. This will continue to be a focus in 2024 to meet increasing demands for the larger electrodes used in higher capacity EAFs.

CUSTOMER SERVICE

Our sales, customer services representative, and customer technical service ("CTS") teams are deeply invested in our customers' ability to successfully conduct their melting operations using our graphite electrodes. These teams have a global presence and provide one-on-one support to our customers in more than 50 countries. Together, they leverage collective industry experience to guide the safe and correct use of our products, optimize production efficiencies, and foster product satisfaction. Our combined commercial and technical services represent a unique market offering that demonstrates our commitment to customer solutions and efficiency.

Customer service efforts are cross-functionally monitored to help promote quality. Our sales, CTS, quality, R&D, and technology and innovation teams work closely to track issues and trends related to products and customers. We use KPIs specific to customer service to help us meet customer needs. We share customer reports during weekly and monthly meetings, and KPIs are shared with the Board quarterly.

ArchiTech
FURNACE PRODUCTIVITY SYSTEM

GrafTrack
SYSTEM

In 2023, we deployed our ArchiTech® Furnace Productivity System in 22 additional locations, bringing the total number of ArchiTech systems installed to more than 250 in over 45 countries, and our GrafTrack® Electrode Monitoring System to eight additional locations. The collective data from these programs represents the voice of our customers, allows us to proactively address customers' needs, and optimizes performance and efficiency, including improved electrode consumption, energy consumption, and furnace regulation.

Customer Technical Service

At GrafTech, we view CTS as a critical collaboration tool for sharing product expertise and knowledge with our customers. It is a key opportunity for our teams to help customers increase productivity, reduce costs, and improve safety. Our global, multidisciplinary network of experienced professionals provides collaborative support to customers, troubleshooting issues, finding solutions, increasing efficiency, and enhancing product satisfaction.

Customers can also provide feedback on product quality issues to any of our CTS engineers. All reported issues are tracked by our customer service team. Working side by side with our customers, our CTS and quality assurance engineers first identify the root cause of the issue and then develop solutions or corrective actions. We are proud that we had a reduced number of reported issues for the fourth year in a row in 2023. We will continue to focus on excellent customer service in 2024.

> "Following GrafTech's recommendations regarding our chemical program adjustments and electrode usage, we've been able to not only reduce burner use, save gas, and reduce CO_2 emissions, but also improve productivity and minimize electrode damage."
>
> **BAKU Steel Company**

> "Using GrafTech's support for our electrode re-machining process, we are converting waste into reusable products, ensuring that waste is minimized and, if possible, eliminated."
>
> **North American Stainless**

COMMUNITY

PROMOTING HEALTHY COMMUNITIES

We understand we have an important role to play as responsible stewards in our local communities. In recent years, community engagement has become an increasing priority for our company. In 2023, we set a goal for each site to host four community engagement events as part of our short-term incentive compensation plan. Each site far exceeded this goal, resulting in an incredibly successful year of community engagement for GrafTech.

2023 Community Engagement Examples

Brooklyn Heights, Ohio

Employees sorted and packaged food donations and prepared backpacks, emergency food kits, and supplemental food boxes at the Greater Cleveland Foodbank.

Monterrey

GrafTech launched the Let's Play Together program to provide local youth with greater access to GrafTech's outdoor sports complex.

Seadrift

Seadrift sponsored and employees volunteered at the annual Hardhead Derby Fishing Tournament, a free event for young anglers and their families.

Bussigny, Switzerland

Employees participated in a community clean-up effort at a local beach and park in the nearby city of Lausanne.

In Monterrey, we continued to reforest our plant site and contribute new growth to the local tree canopy. Since our tree planting program began in 2019, more than 1,300 trees have been added to our site and 2,200 have been added throughout the community. We also maintain our on-site nursery for cultivating native trees.

In 2023, we continued our partnership with local Monterrey schools to offer hands-on learning opportunities at our on-site nursery. This monthly program introduces students to local flora and fauna, particularly monarch butterfly pollinators, and provides students with the opportunity to plant seedlings and trees on our site.

GrafTech also prioritizes engagement with charitable partnerships, local trade organizations, and schools. In 2023, GrafTech employees at our Brooklyn Heights site participated in the Greater Cleveland Heart Walk sponsored by the American Heart Association, which raises funds for medical research and spreads awareness for heart health. We also participated in the NYSE's Global Giving Campaign to support Providence House, an emergency shelter and associated programming for newborns and children whose families are experiencing crisis.

WORKFORCE
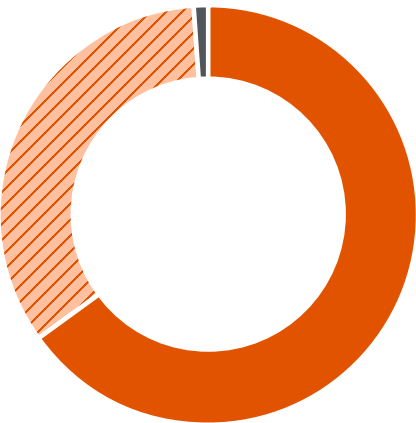

WORKFORCE DIVERSITY

At GrafTech, we believe diversity builds a competitive workforce, as unique perspectives promote business innovation and excellence. Our goal is to strive to foster an intentional, inclusive community that incorporates different backgrounds and experiences.

Our approach to recruitment and hiring support our diversity and inclusion objectives. At both the corporate and site levels, leadership upholds our policies, procedures, and practices for diverse and inclusive hiring and talent management. GrafTech affirms its position as an Equal Opportunity Employer and is providing equal opportunities related to job promotions, compensation, and benefits, including recruiting, employing, and promoting qualified veterans and disabled individuals. This year, our short-term incentive compensation plan rewarded employees for attending trainings to drive diversity and inclusion behavior.

Our global footprint organically lends itself to diversity, and our employees have varied educational and technical backgrounds and life experiences. We measure and track our diversity and intentional talent acquisition, retention, and development practices. Currently, 43% of our senior leadership team and 13% of our Board members are female, and 13% of our Board members are racially and ethnically diverse.[15]
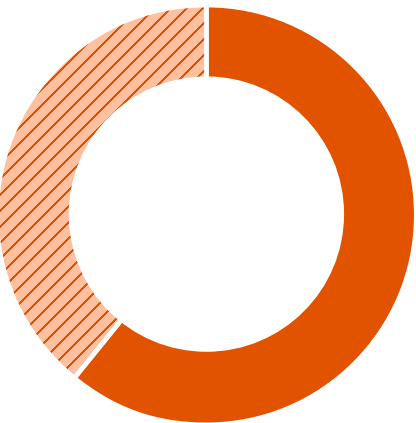
At GrafTech, we prioritize fair and competitive pay. We conduct both internal and external market analysis as part of our annual merit review process and incorporate market analysis into our new hire and promotion processes. We are also looking to refresh our compensation framework to make more consistent job and pay grades across our organization, as well as to better align with market expectations.

Employee Geographic Distribution[16]

- **830** Americas
- **414** EMEA
- **5** APAC

Employee Classification[16]

- **758** Hourly
- **491** Salary

15 As of May 9, 2024

16 As of December 31, 2023

OCCUPATIONAL HEALTH AND SAFETY

The SafeStart® program at all GrafTech locations addresses unintentional human error and critical safety habits. The program centers around a series of repetitive modules that reinforce safety habits at home and work. The SafeStart® program, in collaboration with HS&EP, also asks employees to share "near miss" experiences to troubleshoot real scenarios and create plans to prevent recurrence.

At GrafTech, all employees are responsible for upholding our health and safety standards and practices. Our "Take Two for Safety" program encourages employees to take two minutes to review, understand, and ask questions about the task they are to complete prior to starting daily work. If at any point an employee feels a job is unsafe or they are unsure how to safely perform a task, they are empowered to stop work immediately. Employees can report a potential hazard or safety concern at any time.

We institutionalize risk assessment through hazard reporting and transparent conversations across leadership teams. During monthly leadership calls, we review incidents and corrective actions, share best practices across sites, and discuss health and safety metrics, issues, and emerging topics. Site managers also present health and safety metrics to senior leadership, which are shared quarterly with the Board.

Our internal health and safety management system is foundational to employee safety at GrafTech. The system is key to driving an incident rate that places us among the top operators in the broader manufacturing industry and maintains a safe environment for our employees, contractors, and visitors. Through the system, we emphasize:

- Personal safety;
- Incident reporting;
- Job safety analyses;
- Change management;
- Internal and external audits;
- Contractor management;
- Occupational health; and
- Environmental management.

Health and safety in the workplace is paramount at GrafTech and serves as the foundation for everything we do. We maintain employee health and safety programs, KPI reporting, and tracking procedures. Our ultimate goal is zero injuries.

Our health and safety strategy focuses on fostering an environment where our employees thrive as a productive, unified workforce. We emphasize effective leadership, accountability, engagement, and proactive communication to maintain our high health and safety standards. Every employee has a role in fostering a culture of health and safety, while we provide the support and care for our employees' overall well-being.

Our shared commitment to health and safety excellence is demonstrated through the accountability employees have for themselves and their coworkers. Site management at each location gathers input on health and safety risks and creates action plans to mitigate them. Production employees and management regularly identify risks during site activities, including training, audits, leadership visits, and pre-job planning. Each year, sites work with corporate HS&EP to identify which leading indicators to track and establish targets. Identified targets and associated metrics are reported to senior leadership monthly.

We conduct regular inspections, internal reviews, and corporate audits at our sites to ensure compliance with our safety standards. Corporate audits include a review of site programs and documents, site walk-throughs, employee interviews, and overall evaluation of the HS&EP program's effectiveness. Audits are conducted using our cloud-based health, safety, and environmental software platform, which provides information on the site's HS&EP management systems and regulatory compliance and establishes and tracks completion of corrective actions.

To complete HS&EP audits, GrafTech uses a combination of internal and third-party auditors, as well as in-person and virtual visits, which gives us flexibility in how and when we conduct audits. In 2023, we completed HS&EP audits at 100% of our manufacturing sites.

Our comprehensive safety training program covers GrafTech-specific programs as well as local regulations. Employees also participate in job-specific health and safety programs. New employees are required to complete training and review safety analyses, working with a more senior employee until they obtain the knowledge and skills to safely perform their duties.
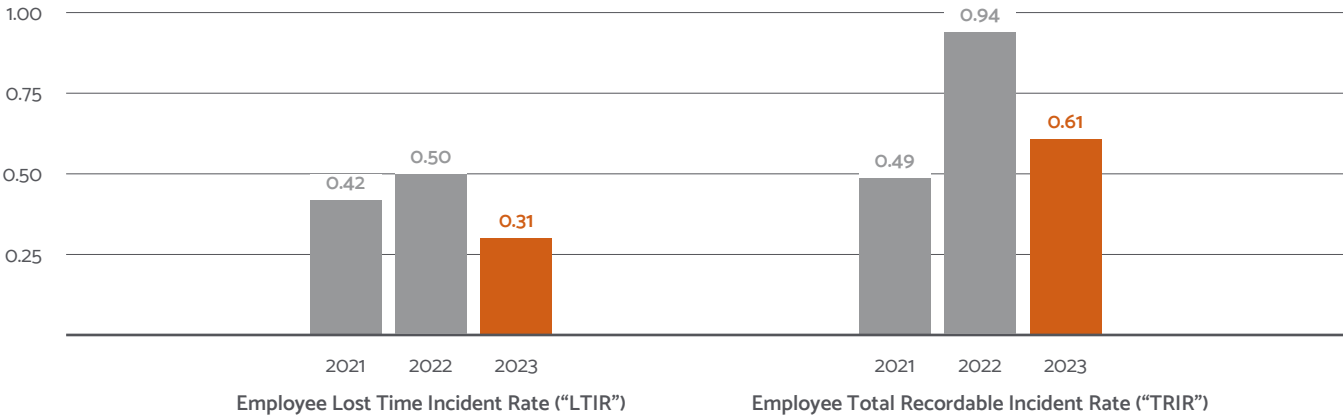
GrafTech requires each job to have a Job Safety Analysis ("JSA") performed, which details the potential risks of each job step and the associated safety requirements. Our Planned Job Observations ("PJOs") validate JSAs job risks, as managers observe operations to verify that employees are working safely. Our "Fresh Eyes" campaign also charges local management to identify potential safety issues that may have gone unnoticed due to site familiarity.

Monitoring and disclosing safety indicators are two ways we maintain strong health and safety performance. Our leading safety indicators include pre-job plan assessments and PJOs conducted, training hours completed, corrective actions associated with inspections and concern reporting, permit reporting, inspection requirements, and first aid and near-miss cases.

In 2023, our Monterrey team celebrated one year of safe operations without a recordable injury, and our Salvador and Seadrift sites have gone multiple years without injuries. We also improved our recordable incident rate by 35% compared to 2022, and GrafTech employees completed 40,250 hours of employee health, safety, and environmental training.

This year, we received the Sello Azul award at our Pamplona site, which is awarded to operations that demonstrate occupational health and employee well-being. The site promotes healthy habits through measures to maintain work-life balance and has a gender equity plan.

Safety Performance Highlights

Employee Lost Time Incident Rate ("LTIR")
2021: 0.42 | 2022: 0.50 | 2023: 0.31

Employee Total Recordable Incident Rate ("TRIR")
2021: 0.49 | 2022: 0.94 | 2023: 0.61

WORKFORCE MANAGEMENT

Our global team of more than 1,200 employees is key to our success. We are committed to the physical, mental, and financial wellbeing of our entire workforce, and our benefits and programs support these three key areas of wellbeing. Employees are empowered to manage their personal and professional development through internal and external training and education programs that are designed to develop and refine their work-related skills.

In addition to base compensation, we offer individual and group-based performance bonuses. Depending on the country, benefits packages include medical, dental, prescription, vision, group life insurance, short- and long-term disability, paid vacation and holidays, and tuition reimbursement. The tuition reimbursement program helps employees to continue their education or seek specialized job training.

Our hybrid work policy offers flexibility for our office-based employees, which increases productivity, performance, and satisfaction; enhances employee recruitment and retention; and improves work-life balance.

We believe that engaged employees help us provide high-quality products and services to our customers. Our global employee engagement survey gathers feedback on a variety of important topics, including safety, pay, communication, and training.

Past results from the survey have highlighted the following themes:

- **Pay:** 67% of employees believe they are paid fairly.
- **Benefits:** 81% of employees feel they have the flexibility necessary to balance work and personal responsibilities.
- **Support:** 93% of employees feel they are treated with respect at GrafTech.
- **Contributions:** 94% of employees understand how their work contributes to GrafTech's goals.

In response to the most recent survey, GrafTech introduced a "Lunch 'n Learn" webinar series, which provides opportunities for employees to learn about different aspects of the business from various groups within the organization. Additionally, we hosted quarterly town hall meetings where employees engage with senior leaders on topics such as financial performance, sales and market conditions, health and safety metrics, and community engagement initiatives. We expect to complete our next survey during 2025 and are targeting participation of at least 65% of full-time employees.

GrafTech looks for opportunities to help employees grow, innovate, and impact our business and industry. Each GrafTech role has a detailed job profile and related competencies that provide clarity and help measure performance. These profiles work in conjunction with our performance management system to connect employees to job-specific training and continuing education opportunities that enable individualized career and growth paths.

We conduct mid-year and annual performance reviews for all salaried employees to assess both individual job competencies and GrafTech's five main core competencies. In 2023, we created a new objective within our performance plan for employees to create at least one personal development goal. During annual performance reviews, employees work with their manager and human resources to discuss progress towards personal career goals, refine career aspirations, and connect employees to specific pathways to achievement. In 2023, 100% of salaried employees received regular performance reviews.

In addition to reviews, employees can discuss their development with their manager through routine "Stay Discussions." In these conversations, employees review development goals and identify opportunities to incorporate their goals into their day-to-day work and career paths.

TALENT ATTRACTION AND RETENTION

We seek out candidates who share our core values, particularly our commitment to maintaining a safe and healthy work environment. We aim to attract and retain top talent from a diverse pool of skilled workers by providing competitive compensation and benefits that meet the needs and support the health and wellbeing of our employees.

We seek potential employees who are passionate, innovative, and driven. Through our interview process, we evaluate the competencies that are most critical to success in their field. To ensure shared values, we ask questions related to our five core competencies:

- Health, Safety, and Environment
- Customer Focus
- Drive for Results
- Ethics and Values
- Peer Relationships

We focus on recruiting talent from our local communities and engage with high school and college students in a variety of ways. For example, our Calais Apprentice Program provides high school and secondary students with work experience in various GrafTech departments, including maintenance, engineering, HS&EP, and continuous improvement. We hold site visits and tours at our facilities to introduce students to the organization's history, graphite electrode manufacturing process, and skills needed to succeed in a manufacturing career. In 2023, Pamplona also participated in the Navarra Talent Challenge, a 24-hour student competition for undergraduate and graduate students to solve real-world engineering challenges posed by companies. Representatives from our corporate headquarters also participated in Goodyear's STEM Career Day, an event for middle and high school students that provides hands-on engineering activities and career mentoring.

ESG PERFORMANCE DATA

GrafTech's ESG disclosures and data are informed by the GRI and the SASB (Chemicals 2023-12).

GRI 2: General Disclosures

GRI STANDARD	DISCLOSURE	LOCATION
Company Information		
General Disclosures		
Organizational details	2-1	About This Report; GrafTech at a Glance; 2023 Annual Report
Entities included in the organization's sustainability reporting	2-2	About This Report
Reporting period, frequency and contact point	2-3	About This Report
Restatements	2-4	GrafTech has recalculated percentages of employees covered by collective bargaining agreements for 2021 and 2022, using methodology recommended by GRI, and applied this methodology for the 2023 disclosure. The percentages previously illustrated the percentage of employees that were covered by collective bargaining or similar agreements that expired or were subject to renegotiation at various times throughout the respective reporting year. The reported values have been recalculated to reflect the percentage of total employees covered by collective bargaining agreements at the end of the respective calendar year.
Activities, value chain and other business relationships	2-6	GrafTech at a Glance; Sustainability at GrafTech
Employees	2-7	ESG Data: Workforce
Governance structure and composition	2-9	Business Ethics and Corporate Governance; ESG Data: Governance; 2024 Proxy Statement
Nomination and selection of the highest governance body	2-10	2022 Sustainability Report: Business Ethics and Corporate Governance; 2024 Proxy Statement
Role of the highest governance body in overseeing the management of impacts	2-12	2022 Sustainability Report: Sustainability at GrafTech; Business Ethics and Corporate Governance
Delegation of Responsibility for managing impacts	2-13	2022 Sustainability Report: Sustainability at GrafTech; Business Ethics and Corporate Governance
Role of the highest governance body in sustainability reporting	2-14	About This Report

GRI STANDARD	DISCLOSURE	LOCATION
Conflicts of interest	2-15	2022 Sustainability Report: Business Ethics and Corporate Governance
Evaluation of the performance of the highest governance body	2-18	2022 Sustainability Report: Business Ethics and Corporate Governance
Remuneration policies	2-19	2023 Annual Report
Process to determine remuneration	2-20	2022 Sustainability Report: Business Ethics and Corporate Governance
Statement on sustainable development strategy	2-22	Sustainability at GrafTech
Policy commitments	2-23	Sustainability at GrafTech
Embedding policy commitments	2-24	Business Ethics and Corporate Governance
Processes to remediate negative impacts	2-25	Business Ethics and Corporate Governance
Mechanisms for seeking advice and raising concerns	2-26	2022 Sustainability Report: Business Ethics and Corporate Governance
Approach to stakeholder engagement	2-29	2022 Sustainability Report: Stakeholder Engagement
Collective bargaining agreements	2-30	2023 Annual Report; ESG Data: Workforce
Materiality		
Process to determine material topics	3-1	2022 Sustainability Report: Materiality
List of material topics	3-2	2022 Sustainability Report: Materiality

ESG Data (2021–2023)

METRIC	GRI/SASB	2021	2022	2023
Governance				
Regulatory Compliance				
Management of material topics	3-3	Business Ethics and Corporate Governance		
Board Diversity[17]				
Male		73%	78%	87%
Female		27%	22%	13%
White[18]		–	89%	87%
Hispanic and Latinx[18]		–	11%	13%

17 As of May 9, 2024

18 GrafTech began collecting self-identified board demographics in 2022.

METRIC	GRI/SASB	2021	2022	2023
Board Age[17]				
Under 30		0%	0%	0%
30–62		64%	55%	50%
63+		36%	45%	50%
Ethics Reporting				
Number of confirmed incidents of corruption	205-3	0	0	0
Number of legal actions taken for anti-competitive behavior, anti-trust, and monopoly practices	206-1	0	0	0
Key Financial Measures (in Millions)				
Net sales		$1,346	$1,281	$621
Net income (loss)		$388	$383	$(255)
Adjusted EBDITA[19]		$670	$536	$20
Environment				
Climate				
Management of material topics	3-3			Climate and Energy
Total Scope 1 GHG emissions (MTCO$_2$e)	305-1, Rt-CH-110a.1	178,626	156,987	107,633
CO$_2$ (MT)	305-1, Rt-CH-110a.1	178,333	156,744	107,490
CH$_4$ (MT)	305-1, Rt-CH-110a.1	4	4	2
N$_2$O (MT)	305-1, Rt-CH-110a.1	1	1	0
Total Scope 2 GHG emissions (location-based) (MTCO$_2$e)	305-2	188,740	157,580	129,631
Total Scope 1 and 2 GHG emissions (MTCO$_2$e)[20]		367,366	141,567	237,264
Scope 1 and 2 GHG emissions intensity (MTCO$_2$e/MT graphite)[21, 22]	305-4	2.06	1.81	2.50

19 Non-GAAP financial measure; see the 2023 Annual Report on Form 10-K, page 33, for the year ended December 31, 2023 for information and a reconciliationof net (loss) income, the most directly comparable financial measure calculated and presented in accordance with GAAP, to adjusted EBITDA.

20 Scope 1 GHG emissions are direct emissions from on-site fuel combustion. Scope 1 emissions include our manufacturing facilities and our headquarters campus. The baking process has been identified as the primary driver for Scope 1 emissions. Scope 2 GHG emissions are indirect emissions resulting from the generation of electricity, heat, or steam purchased from a utility provider. Scope 2 emissions include our manufacturing facilities, headquarters campus, and Bussigny, Switzerland office. The graphitizing process has been identified as the primary driver for Scope 2 emissions. Both Scope 1 and 2 emissions are calculated using the GHG Protocol methodology.

21 GHG emissions intensity is set with an operational boundary of the four graphite electrode manufacturing plants (Calais, France; Pamplona, Spain; Monterrey, Mexico; and St. Marys, Pennsylvania).

22 Scope 1 and 2 GHG emissions intensity is measured as MT of CO$_2$e divided by the MT of graphite electrodes produced (production volume) in the reporting year. Production volume for 2021–2023 are as follows: 2021 = 165,000 MT; 2022 = 157,000 MT; 2023 = 88,000 MT.

METRIC	GRI/SASB	2021	2022	2023
Energy				
Management of material topics	3-3			Climate and Energy
Total direct energy consumption (GJ)	302-1	3,491,904	3,059,194	2,110,735
Natural gas (GJ)	302-1	2,908,330	2,471,506	1,830,325
Gasoline (GJ)	302-1	1,858	1,926	2,265
Diesel (GJ)	302-1	32,817	32,423	25,106
Fuel gas (GJ)	302-1	386,708	415,554	140,278
Total indirect energy consumption (GJ)	302-1	2,701,240	2,730,233	1,747,999
Electricity (GJ)	302-1	2,700,943	2,729,935	1,747,325
Heating–natural gas (GJ)	302-1	297	297	297
Percentage of grid electricity	302-1, RT-CH-130a.1	94.8%	95.4%	96.2%
Percentage of renewable energy	302-1, RT-CH-130a.1	0%	4.0%	2.9%
Total self-generated energy (GJ)	302-1, RT-CH-130a.1	181,105	162,874	52,224
Self-generated energy sold (GJ)	302-1, RT-CH-130a.1	32,972	30,052	1,930
Total energy consumption (GJ)	302-1, RT-CH-130a.1	6,193,144	5,789,427	3,859,031
Air Emissions				
Management of material topics	3-3			Air Emissions
NO$_X$ (MT)	305-7	485	387	245
SO$_X$ (MT)	305-7, RT-CH-120a.1	935	804	467
Particulate matter (MT)	305-7, RT-CH-120a.1	203	153	69
Water				
Management of material topics	3-3			Water
Total water withdrawal (ML)	303-3 (2018), RT-CH-140a.1	1,526	1,532	1,228
Municipal water (ML)	303-3 (2018)	664	863	602
Groundwater (ML)	303-3 (2018)	533	349	299
Surface water (ML)	303-3 (2018)	329	320	327
Recycled water (ML)	303-3 (2018)	569	649	451

METRIC	GRI/SASB	2021	2022	2023
Percentage in regions with high or extremely high baseline water stress[23]	RT-CH-140a.1	11%	11%	11%
Number of incidents of non-compliance associated with water quality permits, standards, regulations	RT-CH-140a.2	0	0	0
Waste				
Management of material topics	3-3			Waste
Total non-hazardous waste generated (MT)	306-3 (2020)	14,941	12,904	12,306
Total hazardous waste generated (MT)	306-3 (2020), RT-CH-150a.1	601	354	348
Total by-products to reuse (MT)		68,398	57,000	57,442
Environmental Compliance				
Notices of Violation for environmental non-compliance that resulted in significant fines or penalties	307-1	0	0	0
Products				
Materials Sourcing				
Management of material topics	3-3			Materials Sourcing
Product Quality				
Management of material topics	3-3			Product Quality and Stewardship
Product Stewardship				
Management of material topics	3-3			Product Quality and Stewardship
Production				
Sales volume (in thousands of MT)		167	149	92
Production volume (in thousands of MT)[24]		165	157	88
Process Safety[25]				
Process safety incidents count	RT-CH-540a.1	0	0	0
Process safety total incident rate	RT-CH-540a.1	0	0	0
Process safety incident severity rate	RT-CH-540a.1	0	0	0
Innovation (in Millions)				
Management of material topics	3-3			Product Quality and Stewardship
Total spend on R&D		$3.771	$3.641	$5.520
Total spend on CAPEX projects		$58.257	$72.165	$54.040

23 Monterrey, Mexico has been identified as a high water-stress area based on the World Resources Institute Aqueduct TM 3.0 water risk framework. Of GrafTech's operational footprint, 11% is located in regions with high or extremely high baseline water stress. Monterrey, Mexico comprises the entirety of that percentage.

24 Production volume reflects graphite electrodes we produced during the period.

25 Seadrift is the only Process Safety Management site within GrafTech.

METRIC	GRI/SASB	2021	2022	2023
Community				
Community Engagement				
Management of material topics	3-3			Promoting Healthy Communities
Workforce				
Workforce Diversity				
Management of material topics	3-3			Workforce Diversity
Occupational Health and Safety				
Management of material topics	3-3			Occupational Health and Safety
TRIR (employees)	403-9 (2018), RT-CH-320a.1	0.49	0.94	0.61
LTIR (employees)	403-9 (2018)	0.42	0.5	0.31
Employee fatalities	403-9 (2018)	0	0	0
Employee fatality rate	403-9 (2018), RT-CH-320a.1	0	0	0
Workforce Management				
Management of material topics	3-3			Workforce Management
Employee Demographics				
Total employees		1,353	1,347	1,249
Male	102-8	1,220	1,201	1,118
Female	102-8	133	146	131
Americas	102-8	863	885	830
EMEA	102-8	483	455	414
APAC	102-8	7	7	5
Senior Leadership[26]				
Total number		6	6	7
Male		67%	67%	57%
Female		33%	33%	43%
Age: Under 30		0%	0%	0%
Age: 30–50		50%	17%	14%
Age: 50+		50%	83%	86%

26 As of May 9, 2024

METRIC	GRI/SASB	2021	2022	2023
Workforce				
Salaried Employees				
Total number		486	532	491
Male		74%	74%	74%
Female		26%	26%	26%
Age: Under 30		9%	10%	10%
Age: 30–50		59%	55%	56%
Age: 50+		32%	35%	34%
Hourly Employees				
Total number		867	815	758
Male		99%	98%	98%
Female		1%	2%	2%
Age: Under 30		18%	17%	17%
Age: 30–50		58%	59%	60%
Age: 50+		24%	24%	23%
Collective Bargaining/Unions				
Percentage of employees covered by collective bargaining agreements[27]	102-41	61%	59%	55%
Human Rights				
Percentage of operations assessed for human rights impacts	412-1	0	0	0
Percentage of employees trained on human rights policies and procedures[28]	412-2	100%	100%	99%
Talent Attraction and Retention				
Management of material topics	3-3	**Talent Attraction and Retention**		
Training and Development				
Percentage of employees receiving regular performance reviews[29]	404-3	100%	100%	100%
Percentage of employees trained on ethics and compliance policies and procedures[29]		100%	97%	99%

27 GrafTech has recalculated percentages of employees covered by collective bargaining agreements for 2021 and 2022, using methodology recommended by GRI, and applied this methodology for the 2023 disclosure. See **GRI 2-4 Restatements** for more information.

28 Included in Code of Conduct training

29 Includes salaried employees

GrafTech International Ltd.
982 Keynote Circle
Brooklyn Heights, Ohio 44131