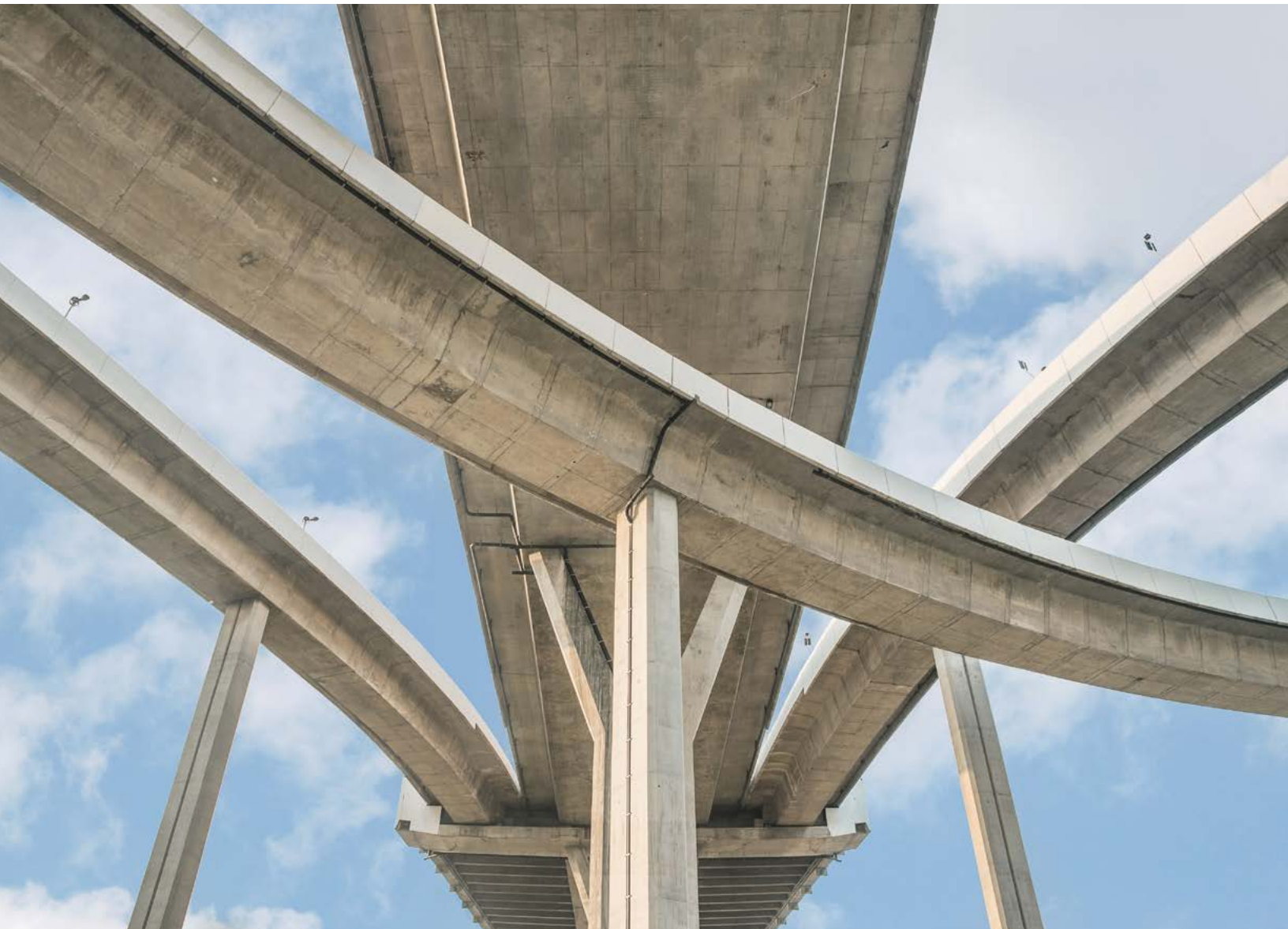


# Eco Material Technologies

## 2022 ESG Report



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## Message from the CEO

Dear Reader,

I am excited to share our inaugural ESG Report with you. Since the closing of Eco Material Technologies' acquisition of Boral Construction Materials and merger with Green Cement in February 2022, we have made great strides in advancing our mission to eliminate carbon emissions from the manufacture of concrete while creating higher-performance products. Read on in the pages ahead to learn about the specific milestones that we have achieved toward reaching this goal.

Concrete is the most widely used man-made material in the world. Global concrete production amounts to approximately 4.4 billion tons annually—or about one thousand pounds for every person on the planet. Moreover, its use is projected to grow strongly in the years ahead as requirements for residential construction and infrastructure expand globally. However, a key ingredient in most concrete mixes—ordinary portland cement (OPC)—generates an estimated 8 percent of anthropogenic carbon emissions. These carbon emission levels are unsustainable if we are to prevent the worst impacts of climate change.

Eco Material has developed both near- and long-term solutions to address this monumental environmental challenge. Our products currently displace 5 percent of the U.S. cement production of approximately 105 million tons per year—keeping over 6 million tonnes of CO<sub>2</sub>e out of the environment. Working with manufacturers to further adopt our technology and products, we expect to double our North American leadership position in zero and near-zero-carbon concrete products by increasing volumes sold into this market by 2030.

Eco Material is pursuing the displacement of cement in U.S. concrete manufacturing utilizing diverse materials, including: (1) fresh coal combustion products, such as fly ash and bottom ash, of which over 30 million tons per year are currently produced; (2) landfilled coal ash products, of which 2 billion tons are available in the United States alone; and (3) natural pozzolans and minerals, of which many billions of tons are available. Eco Material currently has plants operating at scale producing all these products and is actively investigating the procurement of additional zero and near-zero-carbon material resources to ensure our ability to deliver on our growth goals.

We are investing to increase both the quantity of these materials as well as their effectiveness—further increasing their reactivity so that they can displace higher percentages of cement in concrete with our Green Cement products. Our Green Cement products now can replace 50-100% of OPC in concrete and we continue to expand their presence in the market.



Our efforts around coal ash harvesting have additional societal benefits, including cleanly recycling waste materials to return our communities to their natural state. Rather than capping and closing these landfills, we can recycle the waste and reduce pollution on multiple fronts.

At its core, Eco Material is a process and materials technology company whose focus is to use its know-how and patented technologies to increase the availability of sustainable supplementary cementitious materials (SCMs) while reducing the demand for OPC to such a level as to preclude the construction of any new cement plants. Economics, more than politics, will drive this outcome as Eco Material's technologies allow it to build plants at scale for roughly 10 percent of the cost of a cement plant producing the same tonnage—with a significantly higher return on investment.

Decarbonizing the manufacture of concrete represents both an existential challenge for the construction industry and a profound opportunity for our company. Delivering increased volumes of our sustainable products will have a direct impact on the concrete industry's ability to lower its carbon footprint—with the long-term goal of helping it achieve net-zero carbon status. I look forward to sharing our progress on this critical journey in the months and years ahead.

Sincerely,

A handwritten signature in black ink, appearing to read "Grant Quasha". The signature is fluid and cursive, written over a white background.

Grant Quasha

# Eco Material Technologies 2022 ESG Report

## Eco Material's Mission

Building a greener world through innovation in construction materials.

## Eco Material's Vision

Expand North American Leadership position in low-carbon concrete products by doubling volumes to over 20 million tons by 2030.



## Eco Material at a Glance

### About

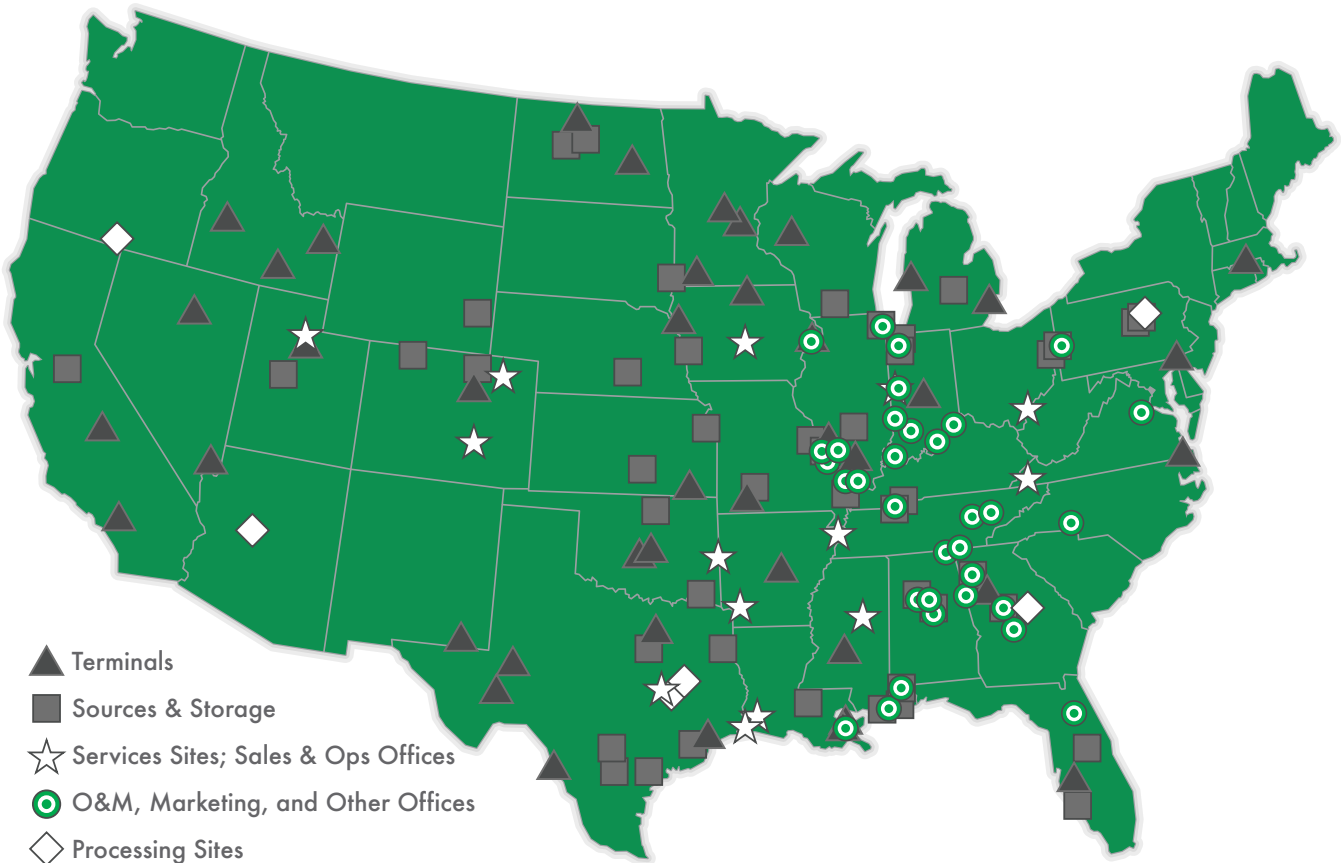
Eco Material Technologies (Eco Material) is the leading zero and near-zero carbon SCM provider in North America. With more than four decades of experience marketing fly ash to the concrete industry, Eco Material is a pioneer in the development of new construction material technologies. Ready-mix concrete producers and contractors improve their operations with the aid of Eco Material's supply reliability, technical expertise, sales, and service support. Eco Material also provides coal-fueled power generating plants with complete on-site ash handling and management, environmental services, and engineering services.

Eco Material's services include coal ash and synthetic gypsum marketing for coal-fueled power generating facilities, which reduce the amount of coal combustion

products (CCPs) that are landfilled. Additionally, previously landfilled CCPs are harvested and beneficiated, allowing existing ash ponds to be cleanly reclaimed. Supplying fly ash for concrete, synthetic gypsum for wallboard and agricultural uses, and a variety of specialty products used in an array of construction materials, Eco Material matches materials with their most effective utilization options, as well as beneficiating the products to enable wider use in standard construction products and significantly decreasing greenhouse gas (GHG) emissions by using more sustainable products.

### Where Eco Material Operates

Supported by its approximately 1,100 employees, Eco Material provides services throughout the U.S., with a large focus on operations in the central U.S.



## Products

Conventional methods of producing concrete for the construction industry use ordinary portland cement (OPC), which is produced by mining and processing limestone with a large GHG footprint. The process includes heating the mined limestone and additives to high temperatures, typically through the burning of coal or natural gas, which combined with the chemical reactions during the heating process lead to the large GHG footprint of OPC. In addition to marketing coal ash, Eco Material offers a number of low-carbon products that will replace ever more OPC in concrete throughout the United States as Eco Material continues to innovate.

**Green Cement**—Eco Material has reengineered pozzolanic cement to make it react faster and produce stronger, longer lasting concrete as compared to OPC. Eco Material's reengineered cement, PozzoSlag®, can replace a significant portion (50% or higher replacement) of OPC required to make high-strength, durable concrete. It is 20% stronger than OPC within the first 28 days and continues to gain long-term strength. Moreover, PozzoSlag® can be made at room temperature with virtually no emissions—a near-zero-carbon cement. Eco Material continues to innovate its Green Cement products to increase its potential to replace OPC.

**Coal Ash Harvesting and Beneficiation**— As the coal-fueled utility industry adjusts to the evolving energy markets, Eco Material is increasing the availability of fly ash and near-zero-carbon products by harvesting previously disposed ash, which is dried and beneficiated into a quality pozzolan for commercial use in concrete. Eco Material offers a range of beneficiation technologies, including its patented ES ECO System, which improves the quality of harvested fly ash, making the ash suitable for use in concrete and other applications. Our proprietary Green Cement technology utilizes fly ash and other pozzolanic materials to produce innovative, near zero carbon products as green substitutes for OPC in concrete. Our standard SCMs like fly ash replace

~20% of portland cement in concrete mixes all while creating a stronger, cheaper and more environmentally friendly concrete. Our OPC replacement products – marketed under the Green Cement brand - Pozzoslag®, PozzoCem® and PozzoCem Vite - upgrade fly ash and natural pozzolans into 50-100% replacement products for portland cement in concrete.

**Natural Pozzolans**—In the southwestern United States, Eco Material's Kirkland mine in Arizona extracts high-quality natural pozzolans, which feature unique chemistry and morphology (physical shape and makeup) that make their performance in concrete competitive with, and often better than, the highest-quality fly ashes and natural pozzolans currently in the market. When used in concrete, this material can create a more durable material than what would otherwise be obtained by using OPC alone.

## Support Services at Eco Material

**Power Plant Resources**—Eco Material assists its utility partners by handling the full range of materials management tasks, including:

- Operating and maintaining ash collection systems and storage facilities
- Providing quality assurance
- Managing environmental compliance, including landfill management
- Engineering, constructing, and renovating ash-handling facilities.

**Engineering Services**—In addition to Eco Material's coal combustion product marketing and near-zero-carbon products, Eco Material has over 40 years of experience providing clients with Engineering Design and Construction Management services related to fly ash and bottom ash processing facilities. Engineering services include a wide range of applications that Eco Material can provide to its utility clients.

## Green Bonds

At its core, Eco Material is a “green” company, as it manufactures and markets products that are low-carbon replacements for building materials. To further focus its efforts and its positive impact, the February 2022 acquisition of Boral and merger with Green Cement to form Eco Material was partially funded by the issuance \$525,000,000 aggregate principal amount of 7.875% Senior Secured Green Notes due 2027 (the “Green Bonds”). As part of the disclosure prepared in connection with the offering, Eco Material developed a Green Bond Framework that was aligned with International Capital Market Association’s (ICMA) Green Bond Principles (GBP). This first allocation and impact reporting was prepared to be completed in alignment with the guidance provided under the GBP Harmonized Framework for Impact Reporting. The GBPs were developed to enable capital-raising and investment in environmentally sound and sustainable projects by promoting transparency in tracking borrowed funds and improving insight to their estimated impact.

### Mapping of the Sustainable Development Goals

Eco Material is committed to being a responsible industrial actor and contributing to the achievement of the Sustainable Development Goals (“SDGs”) through its business. As part of developing and further honing Eco Material’s project selection framework, the company completed an exercise in which its use of the Green Bond proceeds was mapped in accordance with the United Nation’s SDGs . The SDGs form the roadmap of the 2030 Agenda for Sustainable Development which was adopted by all United Nations Member States in 2015 to serve as a common set of articulated goals for future prosperity and partnership. Each SDG in turn includes a number of related sub-targets.



<sup>1</sup> <https://sdgs.un.org/>

The company recognizes that supporting the SDGs in the lead-up to 2030 through the allocation of the net proceeds from the Green Bond is critical and Eco Material can have an especially meaningful impact given that, other than water, concrete is the second-most consumed substance on earth.

Eco Material’s products permit the construction industry to utilize a higher proportion of previously unmarketable industrial waste materials and accelerate the shift towards sustainable sources of SCMs such as landfilled fly ash and natural pozzolans. The use of SCMs in concrete eliminates the landfilling of new CCPs, leads to the reclamation and reuse of previously landfilled CCPs, and reduces water consumption, all of which can in turn assist the global cement industry in reducing emissions to meet the objectives of the Paris Climate Agreement of limiting the rise in global temperatures.

Eco Material determined that its activities were the most closely aligned with SDG 12, ensuring sustainable consumption and production patterns, with a particular focus on Target 12.5, substantially reducing waste generation by 2030 through prevention, reduction, recycling, and reuse. Eco Material is able to harvest previously disposed ash currently stored in landfills and ash ponds and reuse this byproduct of coal-fueled power plants for a useful, low-carbon input for construction.

On an indirect basis, Eco Material contributes to the achievement of the following additional SDGs:

- **SDG 9—Industry, Innovation, and Infrastructure:** Harnessing innovation to provide a low-carbon solution for infrastructure is at the heart of Eco Material’s value chain. By mobilizing its approximately 1,100-strong workforce and technical know-how, Eco Material is engaged in transforming how concrete is made as well as enhancing its physical properties. Eco Material’s PozzoSlag® and PozzoCem® products can replace a significant portion (50-100%) of the OPC required to make high-strength, durable concrete. Infrastructure assets generally require concrete, and therefore the company indirectly contributes to Target 9.1, which is to develop quality, reliable,

## Green Bonds

sustainable, and resilient infrastructure. Utility plants, mass transit assets, dams, and other structures built with Eco Material's products perform better and last longer. Additionally, Eco Material contributes to the achievement of Target 9.4, which is to upgrade infrastructure and retrofit industries to make them sustainable by 2030, with increased resource-use efficiency and greater adoption of clean and environmentally sound technologies and industrial processes, by commercializing OPC alternatives with low carbon characteristics.

- **SDG 12—Responsible Consumption and Production:** Eco Material acknowledges that the world is engaged on a journey towards decarbonization and energy transition. At the same time, demand for infrastructure, housing, and other structures continues to increase in line with population growth and improving standards of living in most regions of the world. Target 12.5—substantially reduce waste generation through prevention, reduction, recycling, and reuse—requires deployment of low-carbon materials. Eco Material's products incorporate fly ash from landfills or other production means and turn this waste into a usable SCM with zero or near-zero-carbon emissions.

### Project Selection Framework

The net proceeds of the Green Bonds were applied to support the merger of Green Cement and Boral to create Eco Material and to position the business as a sustainable SCM industry leader participating in the circular economy. The Green Bonds permit Eco Material to use a higher proportion of previously unmarketable fly ash and accelerate the shift towards sustainable sources of SCMs, adding to the circular economy by beneficially using a waste stream previously landfilled.

Project selection is led by the Executive Leadership Team, which evaluates each project for eligibility. Each project is evaluated according to the following process:

- Identify capacity/demand imbalance
- Identify possible locations or sources of sustainable SCMs to address the imbalance
- Prioritize the top projects
- Update top projects to Executive Leadership Team each month
- Detailed review of project with sponsor and core team
- Build the business case





# Green Bonds

All projects selected must be related to a circular economy or be associated with increasing the proportion of sustainable SCMs produced and marketed by the business, which includes products that are not reliant on current coal-fueled power plants, such as landfilled fly ash, processing fresh and harvested bottom ash, natural pozzolans, etc. The following criteria are utilized in determining eligible projects:

- Diversion of waste from landfills (SDG 12)
- Avoidance of greenhouse gas (GHG) emissions in construction materials (SDG 9)
- Beneficial use of residual products (SDG 12)

Eco Material allocated proceeds to a variety of projects ranging from operational projects with immediate environmental benefits to funding engineering studies for capacity-building projects that will enable Eco Material to expand its sustainable SCMs in the future. Avoided carbon emissions were estimated for all projects, and other metrics, such as amount of material diverted from landfills, materials harvested from landfill, etc., were estimated where applicable.

Allocation was completed in 2022. Pending allocation, the net proceeds of the issue of the Green Bonds were fungible with all other cash held by the company and were invested in temporary cash and cash equivalents consistent with the company’s treasury management policies.

Total Proceeds	\$525 million
Number of Projects	5
% of Proceeds Allocated	100%
Total Impact <sup>2</sup>	<ul style="list-style-type: none"> <li>• 8.5 million tons diverted from landfills annually</li> <li>• 54 million tons of material available for harvest</li> <li>• 6.9 million metric tonnes (MT) of carbon dioxide equivalent (CO<sub>2</sub>e) avoided annually from SCMs currently generated</li> <li>• 41 million MT of CO<sub>2</sub>e avoided from SCMs available for harvest</li> </ul>
Geography	United States



<sup>2</sup> Eco Material notes that it does not currently have a tracking system in place to calculate the carbon intensity (carbon emissions per unit of product) of its products. However, it will be investigating and implementing a robust method of carbon emission tracking in 2023. The estimates were based on the data available and Eco Material’s knowledge of its processes. Quantities of waste diverted or harvested from landfills were based on Eco Material’s sales data.

## Green Bonds

### Green Bond Projects

Project	Year	Proceeds Allocated (Million USD)	Estimated Impact	SDG Mapping
Acquisition of Boral Assets	2022	500	<ul style="list-style-type: none"> <li>• 5.9 million MT of CO<sub>2</sub>e avoided in 2022</li> <li>• 7.7 million tons of coal ash diverted from landfill in 2022</li> <li>• 2 million tons of total material available for harvesting from Montour landfill</li> <li>• 6.4 million cubic meters of water saved by replacement of OPC with fresh and harvested fly ash<sup>3</sup></li> </ul>	SDG 12.5, as coal ash is diverted from landfills relating to current coal-fueled energy production and/or harvested from landfills or ash ponds relating to past coal-fueled energy production; additionally, water use can be reduced through the use of SCMs.
Kirkland Natural Pozzolan Project	2022	10	<ul style="list-style-type: none"> <li>• 260,000 to 395,000 MT of CO<sub>2</sub>e avoided annually</li> </ul>	Natural sources of SCM contribute to SDG 9.1 and 9.4, permitting concrete to be produced incorporating fewer GHG emissions and also strengthening its physical properties.
Texas Utility Bottom Ash Processing	2022	11	<ul style="list-style-type: none"> <li>• 490,000 MT of CO<sub>2</sub>e avoided annually for current bottom ash production and 2.3 million MT of total CO<sub>2</sub>e avoided from bottom ash available for harvest</li> <li>• At capacity, 600,000 tons of bottom ash beneficiated for use in concrete annually</li> <li>• 3 million tons of bottom ash available for harvest from landfill</li> </ul>	Harvesting of bottom ash, which is currently landfilled and has no reusable application, furthers SDG 12.5 and the circular economy.
Fly Ash Harvesting Engineering Studies	2022	2	<ul style="list-style-type: none"> <li>• 37.4 MT of carbon avoided from material available for harvest</li> <li>• 47 million tons of material available for harvest from landfill</li> </ul>	SDGs 12.5, 9.1 and 9.4 as this project furthered a potential new project for recovering coal-fueled power production byproducts and using them to create more resilient and low-carbon cement applications.
Oregon Natural Mineral Byproduct Engineering Study	2022	2	<ul style="list-style-type: none"> <li>• 1.3 million MT of CO<sub>2</sub>e avoided from harvested mine residual and 176,000 MT from ongoing mine operation residuals annually</li> <li>• 200,000 tons of material diverted from landfill per year of newly mined material</li> <li>• 4 million tons of material available for harvest from landfill</li> </ul>	SDGs 12.5, 9.1 and 9.4 as this project furthered a potential new project for beneficially using and recovering mining byproducts and using them to create more resilient and low-carbon cement applications.

<sup>3</sup> Water saved was estimated using OPC water intensity provided in the PCA Environmental Product Declaration for Portland Cement and water usage data provided by Eco Material for its products at several locations.

## Green Bonds

### Acquisition of Boral Assets

As set out in the Green Bond offering memorandum, \$500 million of the net proceeds were dedicated primarily to the acquisition of Boral and its business combination with Green Cement, which will build on Eco Material's strategy and position the business to be a sustainable, green materials industry leader. First, Eco Material will continue to be the industry leader in marketing of fresh fly ash generated by current coal-fueled power plants. In 2022, Eco Material diverted over 7,100,000 tons of fly ash and approximately 600,000 tons of bottom ash from landfill. Just in the marketing of fresh fly ash to the construction material industry in 2022, 5.9 million MT of CO<sub>2</sub>e emissions were avoided, and 7.1 million gallons of water was saved as compared to OPC production. This part of Eco Material's business will be maintained, while accelerating the shift to sustainable SCMs.

Today, approximately two billion tons of currently landfilled fly ash are available in the United States, representing byproducts from decades of coal-fueled power production, with approximately 200 million tons of this ash already identified for new mining projects by Eco Material. The Montour landfill harvesting project was underway prior to the acquisition and produced approximately 27,000 tons of harvested fly ash. It has the capacity to generate over 100,000 MT of harvested fly ash annually for a total of 2 million MT over its life. Over 1.5 million MT of CO<sub>2</sub>e emissions will be avoided through the use of this material in concrete production. Several additional projects for developing sustainable SCM products were identified prior to the acquisition and have been partially financed using the Green Bond proceeds. These are discussed below.

### Fly Ash Harvesting

Georgia Power has committed to closing a number of its fly ash ponds in the southeastern United States and is partnering with Eco Material to find beneficial use for the residuals at two locations in Georgia. Beneficial use of this ash in concrete construction throughout the Southeast U.S. will prevent over 22 million MT CO<sub>2</sub>e from entering the atmosphere.

Eco Material invested Green Bond proceeds to conduct engineering studies at Plant Bowen and two other power plants in the southeast investigating the potential for harvesting fly ash from landfill and fly ash ponds.

- The Plant Bowen partnership will harvest and beneficiate more than 9 million tons of previously disposed ash. The Bowen harvesting is the largest project of its kind in the U.S. Eco Material will harvest and beneficiate over 9 million tons of fly ash in total and approximately 600,000 tons of landfilled fly ash per year from the plant's landfill and surface impoundment once operations are running at full capacity.
- Two additional projects in the southeast were included in the studies and will include excavating approximately 38 million tons of material and placing it in a lined landfill. Eco Material will harvest a portion of the excavated material for beneficiation through drying, screening, and removing excess carbon to produce high-quality, Class F fly ash.

A portion of the Green Bonds proceeds were dedicated to capital expenditure related to engineering studies of the harvesting projects.

### Kirkland Natural Pozzolan Mine

High-quality, natural pozzolan is another sustainable SCM that Eco Material furthered with Green Bond proceeds in 2022. Eco Material finished construction of the mining operations and began operations at the Kirkland Natural Pozzolan mine, a natural source of SCM in Arizona, on June 21st, 2022. When used in concrete, high-quality natural pozzolan can provide many benefits, especially in terms of durability and carbon intensity of the materials. Longer lasting concrete structures require fewer repairs over their service life resulting in lower life-cycle costs. Additionally, increased service life translates to reduced consumption of natural resources and less demolition waste generation bound for landfill disposal.

In 2022, approximately 30,000 tons of high-quality natural pozzolan was produced and sold from the Kirkland mine. At full capacity, it is anticipated the Kirkland mine will produce 325,000 to 500,000 tons of

## Green Bonds

natural pozzolan annually over the next approximately 20 to 40 years, resulting in the avoidance of 260,000 to 395,000 MT of CO<sub>2</sub>e annually.

A portion of the Green Bonds proceeds were dedicated to capital expenditure related to completing construction and final commissioning of the mine.

### Oregon Natural Mineral Byproduct

Imerys Perlite USA (Imerys), a French multinational company, operates natural mineral facilities in the western United States, including a specialty minerals site located in Oregon. This location supplies specialty minerals in the US markets, including filtration, cosmetics, construction, and horticulture. Part of the Imerys process produces a large amount of unusable fine byproducts, which are deposited or stored at their mine site. The Imerys mine sites currently have approximately 1.6 million tons of screened natural pozzolan minerals in stockpiles and produce approximately

200,000 tons per year of screened natural pozzolan minerals. Eco Material invested Green Bond proceeds in an engineering study to confirm that these residual fines could be used as sustainable SCM. Based on the study, Eco Material plans to construct a Green Cement plant with supporting infrastructure capable of collecting, grinding, and subsequently converting the perlite material into PozzoSlag®. The PozzoSlag® will meet ASTM specifications and can be marketed as a standalone cement replacement product with a 50% or more replacement factor relative to OPC. Overall, this project will result in the avoidance of 1.3 million MT of CO<sub>2</sub>e emissions from the use of currently landfilled residuals and an additional 176,000 MT of CO<sub>2</sub>e emissions annually from ongoing mine operations.

A portion of the Green Bonds proceeds were dedicated to capital expenditure related to engineering studies of the project.



## Road to ESG

In 2022, Eco Material partnered with Bridge House Advisors, a third-party consultant, to conduct a materiality assessment designed to identify those environmental, social, and governance (ESG) topics that were most significant to our business and support the development of a sustainability strategy.

The materiality assessment included a peer benchmarking exercise to identify what is considered industry standard as it pertains to sustainability. Additionally, Bridge House Advisors conducted interviews across various teams within Eco Material to identify material, or high-priority, sustainability topics. These interviews were conducted within the following departments: Business Strategy and Risk Management; Environmental, Health, and Safety; Governance; Human Resources; Operations; and Sourcing. Interviews were also conducted with trade associations within the cement manufacturing sector, such as the

American Coal Ash Association (ACAA), as well as Eco Material’s customers, to identify recurring material ESG topics. The results of the stakeholder interviews were closely examined through directed conversations with our executive leadership and sustainability team members.

The materiality matrix, included below, reflects the results from the sustainability strategy process undertaken by Bridge House Advisors and the Eco Material team and enables us to confirm the ESG themes that most closely align with Eco Material’s business. The horizontal axis represents the importance of each ESG topic as it impacts Eco Material and its internal stakeholders, while the vertical axis represents the importance of each ESG topic as it relates to investors and other external stakeholders. The topics found in the upper-right quadrant represent issues that are most material, or of highest priority, to Eco Material.



## Sustainability Framework

After completing the materiality exercise, Eco Material went on to create a strategy and roadmap to track and monitor progress over the next few years. The three pillars outlined below demonstrate Eco Material's

sustainability framework that will guide the development of Eco Material's growth and progress around sustainability in the coming years. .

### Pillars

#### Sustainable Products

Delivering innovative near-zero-carbon construction materials that help our customers meet their business and environmental goals

#### Thriving Communities

Investing in our employees and communities, which are key contributors to the success of our business

#### Responsible Operations

Managing all of our business dealings with integrity and in an efficient and environmentally responsible manner

## Sustainable Products

**Delivering innovative near-zero-carbon construction materials that help our customers meet their business and environmental goals**

### Beneficial Use of Recovered Material

Eco Material is heavily focused on the beneficial use of coal combustion products, including fly ash and synthetic gypsum, which would be landfilled if not sold as usable products. Additionally, Eco Material harvests coal combustion products from power plant landfills for processing and use, similar to that of fresh products. This has enabled Eco Material to divert significant quantities of coal combustion products away from landfills and into concrete and other construction product manufacturing. As new locations are identified and approved for harvesting, Eco Material will increase the amount of harvested materials and ultimately close coal combustion residual landfills.

Eco Material, as well as the broader cement industry and the Environmental Protection Agency (EPA), define beneficial use as "turning would-be waste into a valuable commodity." Products labeled for beneficial use should:

- Perform as well as, if not better, than the materials they are replacing.
- Be as safe, if not safer, for human health and the environment than the materials they are replacing.

*For more information on beneficial use, please visit:*

<https://www.epa.gov/coalash/coal-ash-reuse>.

Eco Material has set a goal to increase the beneficial use of all coal combustion residuals it handles from 65% in 2021 to 75% by 2030.

## Case Study: Increased Synthetic Gypsum at Illinois Utility

Eco Material has driven efforts toward expanding the beneficial use of synthetic gypsum, a byproduct of the coal combustion process. Natural gypsum is a soft sulfate mineral that is widely used as fertilizer and, in the construction industry, as the main component of plaster and wallboard. The substance must be mined or quarried and then ground into a fine powder for it to be usable.

Though nearly identical in chemistry to its natural counterpart, synthetic gypsum has historically had limited markets due to high chloride concentrations, which have a negative impact on the bonding properties and other mechanical properties of gypsum in many building applications.

In 2021, Eco Material initiated a collaboration with strategic customer and coal-fueled power generating facility, Illinois Utility, to improve the marketability of the synthetic gypsum that Illinois Utility generates and, in so doing, to divert the material from waste streams to usable products. Historically, Illinois Utility produced 1.7 million tons of synthetic gypsum each year but sold only 60,000 tons.

Eco Material installed portable dewatering plants to increase the amount of synthetic gypsum that can be utilized in the wallboard industry, an effort that has increased the amount of marketable synthetic gypsum by about 600,000 tons per year. Additionally, Eco Material has pursued alternative markets for synthetic gypsum in the agriculture and cement industries where chloride concentrations are less of a barrier, expanding market penetration by an additional 240,000 tons per year. Between the dewatering plants and the new market access, Eco Material can now market approximately 900,000 tons of the synthetic gypsum annually, increasing market penetration by 1,400% and diverting an additional approximately 840,000 tons of the material from landfill.

Eco Material and PSGC are further collaborating to engineer and install a full-scale dewatering plant to wash and upgrade all of PSGC's synthetic gypsum in order to further displace traditional, environmentally intensive materials. Once a full-scale dewatering plant is in place, Eco Material will be able to divert the entire 1.7 million tons of synthetic gypsum to established markets.

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### Near-Zero-Carbon Products

Because Eco Material's products are the result of beneficial use of coal combustion residuals, all of its products are near-zero-carbon products. Eco Material worked with Bridge House Advisors to calculate the MT of carbon avoided by the use of its products as compared to conventional counterparts, such as OPC. Eco Material estimated the emissions and water consumption associated with its products and compared them to the emissions and water consumption associated with conventional materials per industry-accepted figures. Eco Material does not currently have a tracking system in place to calculate the carbon intensity (carbon emissions per unit of product) of its products. However, it will be investigating and implementing a robust method of carbon emission tracking in 2023. The estimates in this report were based on the data available and Eco Material's knowledge of its processes.

**By bringing over 7.1 million tons of fresh fly ash, harvested fly ash, and natural pozzolan to market, Eco**

**Material substituted an equivalent amount of OPC from the market, resulting in an emissions reduction of nearly 5.9 million MT of CO<sub>2</sub>e emissions in 2022. Eco Material is working to increase the avoided carbon to over 10 million MT of CO<sub>2</sub>e emissions per year by 2030.** Similarly, Eco Material's marketing of fresh and harvested fly ash led to calculated reductions of over 6.4 million cubic meters of fresh water.

Eco Material understands that to be competitive in the concrete space, its products must be competitive and comparable to OPC, which is why Eco Material is laser-focused on identifying new sustainable sources of SCMs, such as landfilled fly ash, bottom ash, and natural pozzolans, and has committed to growing this portion of its sales from approximately 3% in 2021 to 50% by 2030. Additionally, Eco Material is continuing to innovate its manufactured products to replace larger portions of OPC in concrete with a goal of increasing the potential replacement factor of Eco Material's products to OPC from 21% in 2021 to 35% in 2030.

## Case Study: Texas Utility Grinding Project

Eco Material has had significant success as the only national marketer and distributor of fly ash, a fine, powdery byproduct of coal combustion that requires little or no processing to become ready for use in cement and other building applications. Alternatively, bottom ash, another coal combustion byproduct, is coarser, making it largely unfit for cement production as is. As a result, most of the bottom ash produced is placed in a landfill.

In 2021, Eco Material launched a Texas Utility Grinding Project in coordination with a Texas Utility Power Plant.

**On an annual basis, the plant produces 800,000 tons of high-quality Class F fly ash and 400,000 tons of bottom ash.** Historically, the plant has been able to sell all of its Class F fly ash, while selling only a fraction of low-revenue-generating bottom ash.

With the goal of expanding cement-grade coal combustion products and reducing Texas Utility's

disposal of underutilized bottom ash, Eco Material has used its technology to build specially designed mills and dryers to reconstitute the bottom ash into a finer substance that can be blended with existing fly ash and sold for use in concrete. The bottom ash grinding has increased cement-grade fly ash production from this facility by approximately 50%. Additionally, using proceeds of the Green Bonds to further develop the project, previously landfilled bottom ash will be harvested and processed to further increase the production of near-zero-carbon SCMs.

Other advantages include reduction of landfill cell development and landfill closure costs, improvements to the existing loadout systems, improvement to the state's Department of Transportation readiness initiatives, and increased storage and blending capabilities. The unique nature of the project is an industry first and satisfies the needs of both customer and client through an accelerated initiative.

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### Product Quality and Customer Satisfaction

To ensure product quality and safety, Eco Material has a highly specialized team of engineers dedicated to upholding the product quality requirements from ASTM, the EPA, and stakeholders. PozzoSlag® has proven to be a more durable and safer cement than OPC and uses less water, which makes concrete produced from PozzoSlag® less susceptible to microcracks that can allow water to permeate through the concrete. Eco Material will continue to innovate its products to reduce the water demand of its products from 102% in 2021 to 93% in 2030, as compared to OPC, ensuring that Eco Material's water demand decreases as the business continues to grow and scale.

In the event that an issue with product quality and safety is identified, the finding is required to be escalated through

the organization. In the history of Eco Material, there have been no issues identified that have warranted this level of escalation. Additionally, Eco Material has grown its relationships with its customers, including the utilities it services. As discussed in the Green Bond Report section, during the summer of 2022, Eco Material announced a partnership with Georgia Power to reuse landfilled ash from Plant Bowen in Cartersville, Georgia, one of the largest coal-fired power plants in North America. It is estimated that Eco Material will remove and beneficially reuse 600,000 tons of landfilled ash per year. As an extra measure, the recovered ash will be used to make concrete that will support the construction of bridges, roads, etc., in the Southeastern United States.



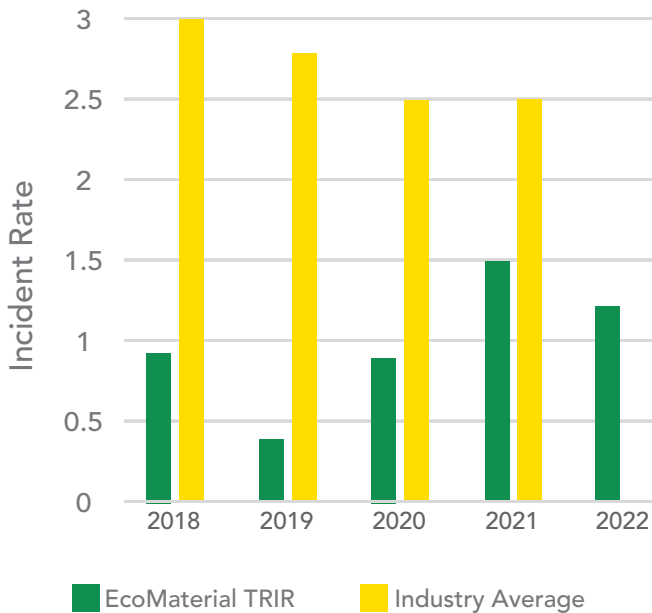
## Thriving Communities

Investing in our employees and communities, which are key contributors to the success of our business

### Employee Health and Safety

Eco Material is committed to operating in a safe and compliant manner with the goal of zero fatalities as well as tracking other safety metrics such as the total recordable incident rate (TRIR). Safety performance metrics are tracked to ensure employees are provided a safe and healthful work environment. TRIR is a normalized rate that analyzes the number of safety incidents on average per 100 full-time employees and is supported by the Occupational Safety and Health Administration (OSHA). The lower the TRIR, the better the safety performance. Eco Material's TRIR is well below the industry average for the construction space as shown below.

**Total Recordable Incident Rate (TRIR)**



Source: 2018 data from [www.bls.gov/news.release/archives/osh\\_11072019.pdf](http://www.bls.gov/news.release/archives/osh_11072019.pdf) 2019-2021 data obtained from [Table 2. Incidence rates of nonfatal occupational injuries and illnesses by selected industry and case types, private industry, 2019-21 - 2021 A01 Results \(bls.gov\)](#) – Construction Industry. Industry data is not available for 2022.

**Year-over-year, Eco Material outperforms the larger construction industry.** To ensure that Eco Material continues on this positive trajectory, it has a dedicated Health and Safety Team that is led by a member of the senior leadership team. The Health and Safety Team provides resources and guidance to site managers, who are ultimately responsible for health and safety performance. Additionally, the Health and Safety Team conducts employee training, as well as audits and inspections, to ensure that workplace safety is not compromised. The Health and Safety Team also investigates occupational incidents to determine the root cause and implement appropriate corrective actions. Since 2016, neither Eco Material nor the former Boral Resources reported any workplace fatalities, and the company is committed to maintaining this into the future. To continue its commitment to workplace health and safety, Eco Material strives to keep its TRIR below 1.0.

### Employee Engagement and Diversity, Equity, and Inclusion (DEI)

Eco Material understands that supporting and providing a diverse workplace can have benefits such as reduced employee turnover. Eco Material is focused on hiring the most qualified candidate for each role and places a heavy focus on filling positions internally before hiring outside of the business. In 2022, three employees at the Vice President-level identify as women. However, Eco Material understands that there is room for continued improvement in the years to come and will continue to foster female leadership and growth opportunities within Eco Material with a goal of increasing females in leadership from 14% to over 20% by 2030. Moreover, Eco Material partners with Kantola to conduct DEI and anti-harassment training for all employees during onboarding as well as annual refreshers.

For more information on Kantola, visit their website at <https://www.kantola.com/>.

To evaluate employee engagement across Eco Material, the company conducted its first employee satisfaction

## Thriving Communities

survey in 2022. This first iteration of the survey was to establish a baseline performance for Eco Material and support the development and creation of a mission statement, vision statement, and value statement. In future years, Eco Material hopes to leverage employee

engagement survey feedback to identify areas of improvement within the company to address concerns and increase engagement among its employees. The results of the employee engagement survey led to the development of Eco Material's Values, as provided below:

### Eco Material's Values

**Environment** – *Creating a cleaner and greener world every day.*

**Innovation** – *Leading the industry by creatively developing and implementing new products and services.*

**Zero Harm** – *Keeping our employees, customers and suppliers safe every day.*

**Integrity** – *Acting ethically, honestly and respectfully towards our stakeholders.*

**Service** – *Focusing on solutions for our customers, suppliers, and workers.*

**Excellence** – *Providing the best products, services, and results with no excuses.*



## Responsible Operations

Managing all of our business dealings with integrity and in an efficient and environmentally responsible manner

### Business Ethics

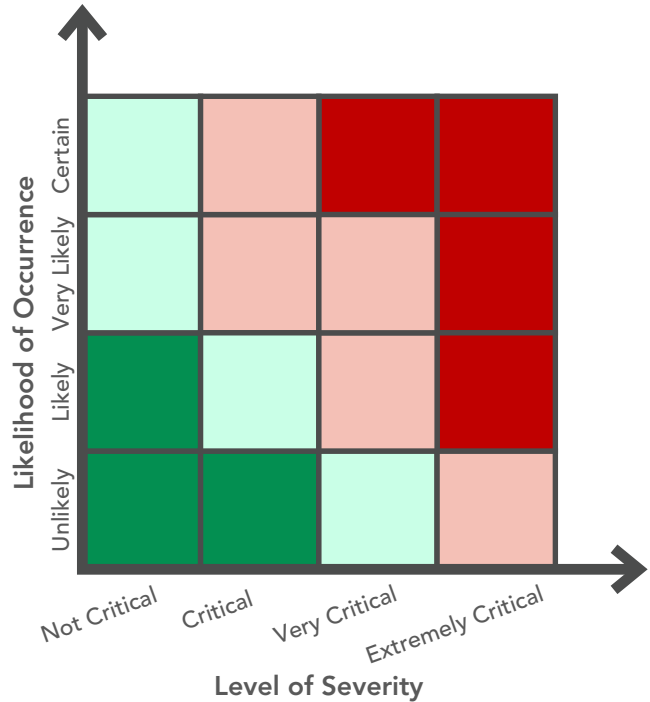
Eco Material prioritizes business ethics to ensure and maintain integrity across the business while protecting its reputation. As part of this effort, Eco Material uses an anonymous hotline where employees can report potential issues. No calls were made to the ethics hotline in 2022 that involved material issues.

As part of its business ethics program, the company also ensures that relevant policies and documents are updated and communicated regularly so that employees are aware of how they are expected to act as an extension of Eco Material. Through a partnership with SAI Global, Eco Material conducts business ethics training for each new hire. This training covers the company’s Code of Conduct to ensure employees adhere to the company’s expectations. Additionally, Eco Material has a Supplier Code of Conduct, and its Sourcing Managers are responsible for ensuring that Eco Material communicates that the company will not use products or suppliers that support or have connections to modern day slavery or forced labor initiatives.

For more information on SAI Global, please visit <https://infostore.saiglobal.com/en-au/>.

### Risk Management

To mitigate risk across the business, Eco Material established a Risk Severity Guide to evaluate the risks of various business activities and align those risks with the company’s risk tolerance more effectively. This Guide was used to analyze the inherent risk of different job functions such as operating heavy machinery, falling into noncompliance with permitting, or the likelihood of a vehicle accident for Eco Material’s drivers



Once a risk is plotted on the Risk Matrix provided above, Eco Material analyzes the cause of the risk as well as preventative measures that have been put in place to evaluate actual risk to the business and further opportunities to mitigate that risk. Looking at the previous example of operating heavy machinery, the cause of an incident could be operator fatigue, faulty equipment, limited visibility, etc. Preventative controls in this instance include pre-work inspections, clear and legible signage, and providing employees with breaks or job rotation opportunities.

As an added measure for employees who drive on-road trucks for work, Eco Material uses regulators to control vehicle speed and is implementing driver-facing cameras called Smart Drive to ensure employees are acting and driving in a safe manner.

## Responsible Operations

### Data Privacy/Security

Eco Material's Information Security Policy provides guidelines to enable for all company locations, as well as users of ancillary technology (laptops, phones, etc.), to protect and secure information technology assets to the greatest extent possible. Eco Material's Data Privacy and Security Program includes annual review of all related policies to confirm that they are compliant and relevant to Eco Material's operational landscape. Eco Material conducts vulnerability scans and penetration tests to add an increased level of security for the business to ensure confidential data is not compromised. As Eco Material continues to grow, the company anticipates that there will be a need for further data privacy and security measures. However, to date, Eco Material has not been experienced any data privacy or information security compromises.

### Energy Management and Greenhouse Gas Emissions

According to the World Resource Institute's Greenhouse Gas Protocol, Scope 1 emissions include any stationary and mobile combustion of fuel (e.g., gasoline, diesel, propane, natural gas, etc.), Scope 2 emissions would include purchased electricity and steam (if applicable), and Scope 3 emissions would include upstream and downstream indirect emissions (e.g., purchased goods/services, capital goods, upstream transportation and distribution, waste, downstream transportation and distribution of sold goods/services, etc.). Eco Material calculated its 2022 carbon

footprint utilizing the estimated natural gas, propane, and electricity usage and fuel consumption data. Eco Material's Scope 1 and 2 emissions were 48,400 MT of CO<sub>2</sub>e. In order to more accurately track the carbon emissions associated with its products and the business's carbon footprint, Eco Material will work to improve its energy and fuel consumption data collection and investigate potential data tracking tools. Eco Material applied GHG Protocol methodologies (CO<sub>2</sub> Accounting and Reporting Standard for the Cement Industry) in order to calculate Scope 1 and Scope 2 emissions.

### Ecological Impacts, Water Management, and Air Quality

OPC manufacturing can have considerable impacts on the natural environment, including land disturbance, disruption to local species, air pollutant emissions, and water use. Eco Material's products offer alternatives to OPC that minimize water use, as discussed in the Sustainable Product section, as well as lower levels of combustion air pollutant emissions, as product drying typically uses substantially less fuel than OPC processing. Additionally, not only do Eco Material's secondary cementitious products divert waste from landfills—reducing the need for additional land disturbance to build landfills—Eco Material is harvesting previously landfilled fly ash generated throughout the lifespan of current and former coal-fueled power plants, which will be able to be closed in the future and the land reclaimed.





**ECOMATERIAL**  
TECHNOLOGIES

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