OUR PEOPLE. OUR VALUES. OUR MISSION AT WORK

2022 SUSTAINABILITY REPORT
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Photo submitted by:  
Priyanka Ruparel | Mumbai, India  

Cover photos, left to right:  
OC Gives Back employee blanket making event, Brookville, Indiana, U.S.  
Steve Marshall, downline operator, Loosefill Insulation plant, Nephi, Utah, U.S.  
Kevin Benekin, production supervisor, Components plant, Charleston, South Carolina, U.S.  
Sanjana Paulchowdhury changing bobbin in loom section, Dapada, India. Photo by Sachin Saxena.
A MESSAGE FROM OUR CEO AND CSO

At Owens Corning, sustainability is at the heart of our business, embedded in our values, and reflected in our mission to build a sustainable future through material innovation. The daily efforts of our 19,000 employees in 31 countries bring our sustainability-focused mission to life – through our innovative products and customer solutions, collaborations with a wide variety of stakeholders and partners, and our sense of responsibility to make the world a better place.

Sustainability has long been core to who we are and how we operate, and we are proud to showcase Our Mission at Work in our 17th annual sustainability report. This report highlights our ongoing aspirations to increase the positive impact of our products, halve our environmental footprint, protect our people, advance inclusion and diversity, and have a positive impact in the communities where we work and live. This is what our stakeholders and the planet need from us, and we are working every day to accomplish these ambitions.

In 2022, we took the next big step in our sustainability journey by reframing our strategic priorities as follows: Operationalizing Sustainability, Building a Circular Economy Model, Leading in Key Regions, Innovating for Decarbonization, Reinforcing Our Foundation, and Living Our Values. Against the backdrop of multiple macroeconomic challenges, we continued to accelerate our progress and attain critical milestones in each of these areas in 2022.

Our 2022 Progress

Climate change requires urgent and ongoing action, and 2022 was an important year of progress for Owens Corning. During the year, we reduced our greenhouse gas emissions by driving energy efficiency in our operations and continuing to invest in alternative forms of energy. In 2022, we achieved 100% renewable electricity through investing in a virtual power purchase agreement providing certificates of origin at our manufacturing facility in Trzemeszno, Poland, formerly the largest user of electricity within Owens Corning.

Thanks to the ongoing work of our people to decarbonize our operations, we are now approximately halfway to our Scope 1 and Scope 2 emissions reduction goal for 2030 compared with our 2018 baseline. Our goal has been verified by the Science Based Targets initiative to be in line with the Intergovernmental Panel on Climate Change’s pathway to limit global warming to 1.5° Celsius maximum above preindustrial levels.
Through our focus on building a circular economy, we continue to invest in further reducing waste and expanding recycling and reuse programs. This involves collaboration with our partners to create more uses and end markets for our manufacturing byproducts and end-of-life materials, including the establishment of shingle recycling programs that will help us meet our goal of recycling 2 million tons of shingles annually in the U.S. by 2030. We are also advocating for better glass recycling and reuse programs in multiple markets around the world. While waste remains an ongoing challenge in our business, and for the industry in general, we are actively pursuing additional waste reduction and recycling innovations and applications.

Taking care of our people and continuing to make Owens Corning an employer of choice are unwavering priorities. This starts with our unconditional commitment to safety. In 2022, one-half of our global sites were injury-free, and we are proud to have earned our place as one of the safest companies in the industry. Despite our achievements, we recognize there is still work to do. There is no end to our safety journey; it is a focus we bring every day to caring for one another in pursuit of our goal of an injury-free workplace. In addition, our support for health and well-being is intentionally comprehensive—with a focus on not only employees on the job but also outside of work and extending to their families.

We are also dedicated to fostering a welcoming culture where everyone is heard, valued, and respected. In 2022, we continued to work toward creating an inclusive environment for all and increasing diversity in our leadership teams and overall workforce. Our efforts include hiring practices that strategically address diversity, support for our affinity groups, and defined benchmarks to track our progress. We have set targets to achieve 35% representation by women (global) and 22% people of color representation (U.S.) within our leadership roles by 2030.

Beyond our own operations, we invest in our communities to make a brighter future possible for everyone. In 2022, we expanded our outreach and giving efforts to focus on creating safe and efficient housing, improving the lives of veterans and their families, promoting educational opportunities for those in need, and advancing health and wellness. This work, and more, moved us closer to realizing our 2030 goal of 100% of employees being actively engaged in their communities through company-sponsored activities.

All these actions, and our ongoing focus on impact and transparency, have resulted in several external recognitions that we are proud to share in this report. While recognition is never the aim of our activities, it reinforces the importance of the work we do. Our 2022 awards included: earning a place on the Dow Jones Sustainability World Index (DJSI World) for the 13th consecutive year, ranking No. 1 on the 100 Best Corporate Citizens list by 3BL Media for an unprecedented fourth consecutive year, and being recognized as one of the World’s Most Ethical Companies by Ethisphere for the fifth consecutive year.

**Outlook**

As we look ahead to 2023 and beyond, sustainability will remain at the heart of our business and a critical value creator for us, our customers, and other stakeholders—regardless of inflationary pressures, supply chain disruptions, and other macro factors. We believe such challenges provide us with significant opportunities to differentiate our business and drive innovation in collaboration with our customers and partners.

Our 19,000 employees are at the center of our efforts to further operationalize sustainability. To all our stakeholders, thank you for your interest in Owens Corning. We are inspired by your engagement as we continue our journey to fully unlock the value of sustainability.

**It is truly Our Mission at Work**

Brian Chambers  
Chair and Chief Executive Officer

David Rabuano  
Senior Vice President and  
Chief Sustainability Officer
In 2022, Owens Corning announced the promotion of David Rabuano to the position of Senior Vice President and Chief Sustainability Officer (CSO). In the first year in his new role, David has led the effort to accelerate the next phase of our sustainability journey. In this report and Q&A, we are pleased to formally introduce David to all our stakeholders and discuss Our Mission at Work to further integrate sustainability into all aspects of our business.

Click here to watch the video and read the transcript.

“I have a holistic view of sustainability and what it’s going to take to achieve our goals.”
Thank you for your interest in Owens Corning and our annual Sustainability Report. This year’s report – our 17th to date – spotlights the many ways we are working to make the world a better place.

This year’s report comes at a pivotal time in Owens Corning’s sustainability journey. In 2022, we welcomed a new chief sustainability officer, David Rabuano, who brings a fresh perspective to our efforts in this area. His insights have guided the telling of our sustainability story this year. And while our approach has changed somewhat this year, our sustainability story remains the same. We remain as committed as ever to our 2030 goals, and we are proud to share our progress with you.

We hope the information in this report inspires every reader to understand that we all have a role to play in reducing our environmental footprint and improving the quality of life for people everywhere – on a global scale, at a corporate level, and in the individual choices each of us make each day. We also hope you will be inspired to join Owens Corning as we work to fulfill our mission of building a more sustainable future.

Owens Corning is a global building and construction materials leader committed to building a sustainable future through material innovation. Our three integrated businesses – Composites, Insulation, and Roofing – provide durable, sustainable, energy-efficient solutions that leverage our unique material science, manufacturing, and market knowledge to help our customers win and grow.

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**OUR MISSION**

To build a sustainable future through material innovation.

**OUR PURPOSE**

Our people and products make the world a better place.

**OUR VALUES**

Global in scope, human in scale.

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**Caring**

- We keep each other safe and healthy.
- We offer an inclusive environment where diverse perspectives are valued and appreciated.
- We actively support our communities and protect our environment.

**Curious**

- We challenge the status quo for greater impact and innovation.
- We listen and learn from one another’s different skill sets and experiences.
- We relentlessly pursue solutions that exceed customer expectations.

**Collaborative**

- We work together in an open, transparent, and respectful way.
- We foster highly connected teams across the global enterprise.
- We partner with our customers and other stakeholders to drive the best outcomes.

**Committed**

- We are accountable to deliver financial and operational results that outperform the market.
- We empower our people to make decisions and act like owners.
- We remain resilient to achieve our goals and best serve our purpose.
Insulation

Insulation products help conserve energy while improving acoustics and fire resistance in the places where we work, live, and play.

Our Insulation segment includes a diverse portfolio of high-, mid-, and low-temperature products; a market mix of residential, commercial, industrial, and other markets; and a channel mix of retail, contractor, and distribution.

Our products in the residential channel—sold under such well-known brand names and trademarks as Owens Corning® PINK® Fiberglas™ insulation—include thermal and acoustical batts, loosefill insulation, spray foam, and foam sheathing and accessories. In the commercial and industrial channel, our products are sold under well-recognized brand names and trademarks such as PAROC® insulation. They include glass fiber pipe insulation, energy efficient flexible duct media, bonded and granulated mineral wool insulation, cellular glass insulation and foam insulation used in above- and below-grade construction applications, and are sold under well-recognized brand names and trademarks such as FOAMULAR®, FOAMGLAS®, and Paroc®.

We sell our insulation products primarily to insulation installers, home centers, lumberyards, retailers, and distributors in the U.S., Canada, Europe, Asia Pacific, and Latin America.

Roofing

Roofing products and systems help protect and preserve homes and commercial buildings while enhancing curb appeal.

Our primary products in the Roofing segment are laminate and strip asphalt roofing shingles. Other products in this segment include roofing components, synthetic packaging materials, and oxidized asphalt.

Owens Corning® shingles and roofing components are sold mainly through distributors, home centers, lumberyards, retailers, and contractors in the U.S., while our synthetic packaging materials are primarily used in the construction industry for lumber packaging. Oxidized asphalt is a significant input used in the production of our roofing shingles.

We are vertically integrated and have manufacturing facilities that process asphalt for use in our roofing shingle manufacturing. In addition, we sell processed asphalt to other shingle manufacturers, to roofing contractors for built-up roofing asphalt systems, and to manufacturers in other industries such as automotive, chemical, rubber, and construction.

Composites

Composite materials make products lighter, so less energy is needed to transport and operate them. They also help make products stronger and more durable, which reduces the need to repair or replace them.

Our Composites business facilitates the manufacturing of a wide range of glass fiber and downstream products such as fabrics, nonwovens, and other specialized products. Composites are used in more than 40,000 end-use applications primarily within three markets: building and construction, renewable energy, and infrastructure.

We serve a range of market segments: building and construction, power and energy, industrial, and consumer products. Examples of end-use applications include building structures, roofing shingles, tubs and showers, pools, decking, flooring, pipes and tanks, poles, electrical equipment and wind-energy turbine blades.
We aim to capitalize on our market-leading positions and innovative technologies to deliver substantial free cash flow and sustainable shareholder value. The business is global in scope, with operations in 31 countries, and human in scale, with approximately 19,000 employees and long-standing, local relationships with its customers and communities.

Based in Toledo, Ohio, U.S., Owens Corning posted 2022 net sales of $9.8 billion. It has been a Fortune 500® company for 68 consecutive years.

Owens Corning is a publicly traded company on the New York Stock Exchange. As of December 31, 2022, beneficial ownership includes Blackrock, Inc. (13.58%) and The Vanguard Group (10.56%).

Corporation continues to be a leader in corporate responsibility, and we are very proud of the recognition we receive along the way. It also provides inspiration for our people as we seek out new ways to build a more sustainable company. The following are some of the awards and distinctions we received throughout 2022.

**Best Corporate Citizens List**

For an unprecedented fourth year in a row, Owens Corning was ranked number one on 3BL Media’s list of the 100 Best Corporate Citizens.

The list, previously published by Corporate Responsibility Magazine, recognizes outstanding global ESG (environmental, social, and governance) performance among the 1,000 largest U.S.-based public companies. This is the eighth year Owens Corning has been named to the list. The companies are ranked based on a blend of performance and disclosure.

**Barron’s Most Sustainable Companies**

In 2022, Owens Corning debuted at No. 27 on the Barron’s 100 Most Sustainable Companies list. This fifth annual ranking was administered by Calvert Research and Management, which scored the 1,000 largest publicly traded companies by market value for five key constituencies: shareholders, employees, customers, community, and the planet. More than 250 environmental, social, and governance performance indicators were evaluated in compiling Barron’s most recent annual list.

**CDP**

Owens Corning earned a place on the CDP A List for Water Security for the fourth year in a row. The company also scored an A for CDP Climate Change in 2022, which represents the seventh consecutive year we earned a score at the Leadership Level. In addition, Owens Corning’s efforts to reduce climate risk in our supply chain earned us a place on CDP’s 2022 Supplier Engagement Leaderboard.

Formerly known as Carbon Disclosure Project, the U.K.-based CDP works with investors, companies, and policymakers to reduce GHG emissions and safeguard water resources and forests. By including Owens Corning on these lists, CDP recognizes us for our corporate sustainability leadership, through scoring that “measures comprehensiveness of disclosure, awareness, and management of environmental risks, and best practices associated with environmental leadership, such as setting ambitious and meaningful targets.”

**Corporate Equality Index**

Owens Corning received a perfect score on the 2022 Corporate Equality Index, a key benchmarking survey that evaluates corporate policies and practices related to LGBTQ+ workplace equality. This marks the 18th consecutive year we have received 100% on this survey, established by the Human Rights Campaign Foundation.

**DiversityInc 2022 Companies for Diversity**

Owens Corning was named a 2022 Noteworthy Company by DiversityInc, an organization that annually ranks U.S. companies for diversity, equity, and inclusion, for the second consecutive year. The rankings measure performance based on six key areas of diversity and inclusion management: human capital diversity metrics, leadership accountability, talent programs, workplace practices, supplier diversity, and philanthropy.

**Dow Jones Sustainability Indices**

In 2022, for the 13th year in a row, Owens Corning earned placement in the Dow Jones Sustainability World Index in recognition of its sustainability initiatives. The DJSI World Index is an elite listing of the world’s largest companies based on long-term economic, environmental, and social criteria. Our score places us in the 100th percentile for the building products industry. In addition, we earned a perfect score for the criteria related to materiality, environmental reporting, risk and crisis management, and social reporting. The company is also on the DJSI North America list for the fifth consecutive year.

**EcoVadis**

In our last assessment, in 2021, Owens Corning earned a Platinum certificate with EcoVadis, a company that provides holistic sustainability ratings for businesses worldwide. The rating comes after analyzing our responses to an extensive questionnaire in comparison with over 65,000 other companies. Owens Corning was ranked among the top 1% of all companies rated by EcoVadis.
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CORPORATE AWARDS AND DISTINCTIONS

ENERGY STAR

Owens Corning’s world headquarters in Toledo, Ohio, U.S., earned the Environmental Protection Agency’s ENERGY STAR rating for 2022.

Ethisphere Institute: World’s Most Ethical Companies

Owens Corning was recognized by Ethisphere as one of the 2022 World’s Most Ethical Companies. This marks the fifth consecutive year the company has been recognized with this honor. Owens Corning was one of just two honorees in the Construction and Building Materials industry, underscoring its commitment to leading with integrity and prioritizing ethical business practices. In 2022, Ethisphere honored 136 companies from 22 countries and 45 industries. Ethisphere is a global leader in defining and advancing the standards of ethical business practices.

Fortune 500®

As of 2022, Owens Corning has been recognized as a Fortune 500® company for 68 consecutive years. This year, Owens Corning moved up five places on the list to No. 408.

S&P Global Gold Class Distinction

Owens Corning earned Gold Class distinction from S&P Global, the organization’s highest honor for excellence in sustainability performance, for the ninth consecutive year. Owens Corning was the sole Gold Class awardee in the Building Products category. S&P Global is a leading provider of credit ratings, benchmarks and analytics in the global capital and commodity markets. The S&P Sustainability Yearbook looks at performance across such factors as volunteerism, energy and emissions reduction, production efficiency, customer and supplier collaboration, and talent development.

Green Power Partnership – National Top 100

In its most recent rankings, Owens Corning placed at No. 20 on the U.S. Environmental Protection Agency’s (EPA’s) National Top 100 List of the largest green power users from the Green Power Partnership. The company was also No. 17 on the list of Green Power Partners from the Fortune 500®.

ISS QualityScore

Institutional Shareholder Services (ISS) awards

QualityScore ratings based on a range of criteria related to environmental, social, and governance performance.

A lower score, on a scale from one to ten, indicates lower risk and/or better disclosure on the part of the company. In 2022, Owens Corning’s ISS QualityScore ratings were 1 in environmental and social.

JUST Capital

Owens Corning was ranked No. 1 for Building Materials and Packaging for 2022. We were also No. 23 in the Just 100. Companies are rated based on their performance across a range of categories, including the treatment of employees and customers, product quality, sustainability, jobs, and community support, as well as company leadership.

Science Based Targets Initiative

Our 2030 goal to reduce Scope 1 and Scope 2 greenhouse gas emissions by 50% is in line with standards set to hold global warming to 1.5° Celsius. The Science Based Targets initiative, which set these standards, has approved our goal.

In addition, Owens Corning’s commitment to reducing Scope 3 greenhouse gas emissions by 30% by 2030 has been approved by the Science Based Targets initiative.

WSJ Management Top 250

Owens Corning ranked No. 37 in 2022, up from No. 54 in 2021 and No. 99 in 2020. This ranking, developed by the Drucker Institute, measures corporate effectiveness by examining performance in five areas: customer satisfaction, employee engagement and development, innovation, social responsibility, and financial strength. The ranking is based on an analysis of 34 data inputs provided by 14 third-party sources.
At Owens Corning, we recognize that the work our people do today has the potential to help improve people’s quality of life for generations to come. With that in mind, we have developed an all-encompassing approach to sustainability, based on a set of goals that are deeply rooted in our belief that we have the potential — and the responsibility — to make the world a better place.
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RISK MANAGEMENT

Owens Corning identifies and manages risk across economic, environmental, and social domains. Our forward-thinking, holistic approach to managing risk enables us to make effective business decisions that help us achieve long-term financial goals and shape our future success.

Oversight and Management

Enterprise Risk Management (ERM) is owned by the executive committee, which delegates its management to the risk committee. The executive committee then monitors the risk committee’s management of ERM, culminating in a final review by the audit committee of the board.

The risk committee is responsible for overseeing and monitoring our risk assessment and mitigation actions. The risk committee is not a board committee — it is a cross-functional committee that includes members across many areas of expertise and is structurally independent of our business lines. This internal group identifies risks and mitigation strategies and provides key updates to executive officers and the audit committee.

The risk committee’s membership is designed to ensure diversity of thought and perspective related to risk, including a range of functions and geographic representation. Corporate function representation includes internal audit, legal, treasury, corporate strategy and financial planning, sourcing and supply chain, and IT. Additional members represent operations, human resources, commercial strategy, and science and technology within the businesses. Safety and environmental concerns were expanded in the core risk register, which increases the extent to which sustainability issues are embedded in the enterprise-wide risk process.

The risk committee reports to the executive committee, and it is specifically sponsored by both the chief financial officer and general counsel, who are themselves members of the executive committee. In support of these efforts, the independent corporate audit function systematically addresses risk throughout the organization. Audit results are reviewed with the audit committee of the board of directors, which has primary responsibility for assisting the board’s oversight of risk.

The audit committee’s responsibilities include:

- Discussion of guidelines and policies that govern the process by which senior management and relevant departments access and manage the company’s exposure to risk.
- Annual review of, and quarterly updates on, Owens Corning’s key risks, major financial exposures, and related mitigation plans.
- Oversight of our management of the key risks and major financial exposures that fall within the audit committee’s specific purview.
- Assurance that the board and its committees oversee our management’s key risks and major financial exposures within their respective purviews.
- Quarterly evaluation of the effectiveness of the above-referenced process of oversight.

In addition to the ERM process, three board committees — the compensation committee, the finance committee, and the governance and nominating committee — review and evaluate risks associated with their respective areas. Each board committee reports on its respective risk management activities, and the board then considers such reports.

Between annual reviews, the business stakeholders review the registers, and the risk committee meets quarterly to discuss any applicable updates. The audit committee and the executive committee also review risk registers quarterly, regardless of any planned updates, to ensure that the risk committee has identified all potential risks. Any material updates made are then reviewed with the executive committee and audit committee of the board.

Photo submitted by:
Deivid Pereira | Toledo, Ohio, U.S.
Plant tour at the new Razor facility, Fort Smith, Arkansas, U.S.
Left to right: Deivid Pereira (chemicals sourcing leader), Erica Bollinger (plant sourcing specialist), Merideth Cooper-Steiger (senior scientist) and Tony Ferguson (plant controller).
Risk Registers

Owens Corning’s business units proactively analyze risks and create business- and function-specific risk registers. We currently have an enterprise risk register and sub-registers for each of our three businesses (Composites, Insulation, and Roofing), as well as compliance and finance. The risk committee uses these individual risk registers to create an enterprise risk register, which enables business units and the risk committee to facilitate strategic and operational planning processes while mitigating sustainability and other risks.

Risks are prioritized based on their placement in the risk register. The Y-axis (“Value”) represents the potential financial impact, while the X-axis (“Likelihood”) represents the probability of occurrence. Color coding (for risk acceptability) and different shapes (for trending information) offer a fuller understanding of the potential risks. We also include the concept of risk velocity in our conceptualization of risk, describing the potential rate at which a risk could impact our businesses. While risk velocity is not depicted on the risk register in an infographic manner, the concept is described in conjunction with the overall register narrative. By incorporating the idea of risk velocity into our understanding of risk, we gain a better understanding of impending impacts, which enables us to be proactive in our approach.

To identify new risks — and update risks no longer considered important — the risk committee conducts quarterly reviews of results and outputs of risk assessments. The risk committee’s quarterly meetings enable them to review and report on robust mitigation plans across businesses, as well as corporate functions. The audit committee of the board also reviews our ERM process quarterly to ensure it remains relevant and proactive.

Risk on a Page

Owens Corning uses Risk on a Page to encourage active learning through risk mapping. This model requires each risk to be presented separately, with dedicated team members playing an active role in managing each individual risk. The tool is used to describe key information about the risk such as risk trend, risk velocity, mitigating actions, and its link to the strategic plan. It also includes a map of the risk that depicts its status, from inherent risk to residual risk, to pictorially represent the impact of mitigating actions, as well as the final mitigated position of the risk for the sub-register or enterprise register.

Each risk has two sponsors — one from the risk committee and one from the executive committee — and has its own risk owner and subject matter expert. The risk owner and subject matter expert are responsible for ensuring we have mitigating actions in place for each risk, and that we are making consistent progress toward mitigation. Risk owners are responsible for the overall management of the risk and cross-functional and vertical communication through the organization, ensuring visibility of the risk in all elements of strategic planning. This approach enables us to drive updates to the risk register, as sub-register risks roll up to the enterprise level. Extra training on the use of the tool is required, and is refreshed for new stakeholders each year.

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Example of a risk register for demonstration purposes.
Risk Mitigation Framework

Risk Management Training

Our ERM function (and philosophy) is dispersed throughout the organization at all levels, and we ensure that risk registers are updated through risk liaisons. Each sub-register has a risk liaison, who is responsible for facilitating updates to their respective sub-register. Risk liaisons receive thorough training from the corporate risk leader, and then go on to train subject matter experts and risk owners in their respective businesses or corporate areas. As part of this process, individuals are trained in our approach to ERM.

Additionally, the legal department initiates global annual training on our Business Code of Conduct and antitrust policies to broadly address key compliance risks. Each business is required to complete strategic planning, covering risk management and strategic risk. Owens Corning conducts regular and ongoing risk management training globally for personnel on the risk committee and in risk functions, including sourcing and finance.

Risk Management and Human Resources

Effective risk management is considered in our human resources (HR) processes for employees who are responsible for identifying and continually progressing mitigation strategies for risks in their daily job responsibilities. This is evidenced by our risk management process, which includes risk register development at the enterprise, business unit, and corporate function levels. In support of our efforts to reduce risk in HR, Owens Corning has implemented an executive committee review, which details talent health, leadership succession, hiring and developing capabilities, retention, and inclusion and diversity progress.

Engaging Employees in Risk Management

Many employees are involved in risk identification, as we encourage them to identify new risks to the organization through questionnaires, interviews, and the regular update of the business and enterprise risk registers. During these reviews, employees are given a forum to provide feedback. Potential risks regarding such items as sourcing, safety, environmental concerns, and HR are raised at the plant level, and the results of the forum discussions are shared across the company and evaluated at the leadership team level in each facility; when appropriate, the feedback is compiled into the business unit-level risk register. Once within the risk register, processes are established and appropriate employees are trained. There is also focused, web-based loss-control training available for plant personnel.

In keeping with our culture of safety, employees are encouraged to be proactive in their management of risk. An example of this can be found in our integration of Total Productive Maintenance (TPM) into our operations. TPM emphasizes proactive and preventive activities to maintain, manage, and improve production. All employees are involved in maintaining their own process during production, which creates a shared responsibility for equipment and increases involvement from everyone. In addition, hazard recognition and near-miss reporting are significant tools within our safety culture and throughout the plant network.

Our internal audit team engages key executives to review areas of risk as the team develops its audit plan. The team interviews executives each year, and this process has been integrated with our ERM. Each quarter, the three businesses, finance, and compliance refresh their risk registers and identify any new or materially changed risks and how they relate to the strategic plan.

Employees are encouraged to report their concerns to any manager, member of human resources or legal operations, or any member of our business conduct council (BCC). Employees may also submit their concerns (anonymously) to our BCC through a confidential helpline (1-800-461-9330) or web portal, operated by a third-party service provider. Employees can also report their concerns to the council using a designated email (ethicalbusinesscomplaints@owenscorning.com) address or a dedicated postal mailbox.

This emphasis on risk also extends to new acquisitions. As part of our due diligence in the acquisition process, we evaluate the risk for items such as environment, safety, financial, IT, product stewardship, HR, and sourcing.
SUMMARY OF KEY RISKS

Owens Corning is subject to a diverse array of risks, which vary greatly in importance and likelihood. Some are directly related to the competitive nature of our business and our operations, while others are the result of external forces, including weather-related phenomena. Using correlation analysis, we assess the likelihood of an event occurring within a specific period, then prioritize and develop strategic plans accordingly. We apply this analysis to our key external business drivers, such as housing starts, hurricanes and other severe weather conditions, and wind-power growth rates.

For example, our analysis indicates that the North American building insulation business is highly correlated to new home starts. Based on actual and forecasted home starts, the business develops its strategic plan and makes the appropriate tactical maneuvers to right-size our capacity and workforce. Additionally, energy, commodity, and foreign currency hedging programs are routinely evaluated to provide inputs into our correlation analysis.

Sustainability Risks

For purposes of this report, we recognize the need to highlight potential risks that are specific to our sustainability efforts. In addition, we believe it is important for investors to understand the emerging long-term risks that we may face in the future.

Both the board of directors and its audit committee retain some oversight responsibility for environmental, health, and safety risks. In addition, board members are expected to provide oversight, guidance, and direction on sustainability issues and opportunities that have potential impact on our reputation and long-term economic viability. The following risks are also relevant to our sustainability efforts as outlined in this report.

Emerging Risks

Climate Change and Associated Weather Conditions

While the science behind climate change has been clear for a long time, the gravity of the situation is becoming increasingly apparent. The world is recognizing the need to act quickly and decisively to mitigate the emerging risks that climate change poses for the safety, health, and economic well-being of people everywhere.

Given our understanding of the physical risks associated with climate change, Owens Corning has set targets aligned with the latest findings from the Intergovernmental Panel on Climate Change (IPCC). To avoid the worst impacts of climate change, the IPCC urges that temperature rise should be held below 1.5° C. Informed by this latest climate science information, we seek to reduce our Scope 1 and Scope 2 greenhouse gas emissions by 50% by 2030, and our Scope 3 emissions by 30%. The Science Based Targets initiative has verified that Owens Corning's greenhouse gas emissions reduction goals align with this standard.

Owens Corning continues to assess all the potential risks associated with climate change to gain a more comprehensive understanding of the many ways that climate-related risks can impact operations across our entire value chain. As weather conditions shift, severe storms can have a significant impact on the markets for residential and commercial construction, repair, and improvement, as well as a material adverse impact on our results of operations. Among our customers, severe weather conditions could slow or limit residential or commercial construction activity, which in turn could adversely affect demand for our products. Within our own operations, extreme weather can lead to disruptions in our manufacturing capacities, as damages to our facilities may occur. In addition, as weather-based disruptions become more common, we could experience difficulties in obtaining affordable insurance. Severe weather conditions can also have a negative impact on our suppliers, hindering our ability to obtain the materials needed to maintain our own operations.

Climate Change and Associated Transitional Risks

Owens Corning is subject to or has chosen to voluntarily participate in Emissions Trading Schemes (ETS) around the world, such as the Alberta Technology Innovation and Emissions Reduction, EU Emissions Trading System, California’s Cap-and-Trade system, the Canadian Federal Output-Based Pricing System, the Québec’s Cap-and-Trade GHG emissions system, and South Korea’s Emissions Trading Scheme. Expansions of these schemes could impact us by reducing our carbon allowances, thus increasing our operating costs in those countries.

For example, with the further reductions in allowances through Phase 4 of the European ETS, our annual allowances were reduced, which requires us to purchase credits.

Phase 4 applies to the period 2021 to 2030. Volatility in carbon market pricing creates additional risk. Our course of action in managing these risks involves: interacting with the commission regarding the implementation of the EU Green Deal and Fit-for-55 package; pursuit of R&D initiatives involving a change in material composition or in manufacturing processes to enable emissions reductions; and implementation of energy and GHG reduction projects.
We also anticipate transitional risks as climate-change legislation and other environmental mandates lead to increases in energy prices. This can have an adverse effect on our operations, as it can represent a cost increase that we may not be able to pass along to the customer.

Owens Corning has strategies in place to mitigate these risks. Chief among them is our commitment to the circular economy model, in which we work to avoid the use of virgin raw materials whenever possible, manufacture products to deliver the least negative environmental impact, and ensure that materials used in our products and packaging remain in the economy indefinitely. Discussion of our commitment to this model begins on page 107 of this report.

In 2020, Owens Corning began working with The Ohio State University (OSU) to evaluate efforts in assessing resiliency of current strategies against a range of climate-related scenarios and time horizons. The scenario analyses focused on Shared Socioeconomic Pathways (SSPs) for the scenario analysis: SSP1-2.6, SSP2-4.5, and SSP5-8.5. The use of these SSP models aligns our analyses with the most recent 2021 IPCC sixth assessment report (AR6). These initial analyses referenced time horizons of the current period, 2036, and 2051.

The initial scenario analysis work focused on two areas: physical climate risks posed to our company locations, and potential impacts of climate change on demand for our roofing products influenced by severe weather activity.

In the first project, OSU conducted a climate scenario analysis for physical climate risk across facilities over the same emission pathways and time horizons. The findings will be incorporated into our risk assessment for our plants. Variables assessed included factors such as winds, cyclones, and severe weather; flood risk; drought risk; and maximum temperature. Each of these factors can change for each facility in response to different climate scenarios, and awareness of these potential changes at the site level is a key step to ensuring preparedness at the enterprise level. We are currently evaluating more detailed analyses for specific facilities.

For the second scenario analysis, OSU was able to model the potential changes to U.S. roofing product demand by region for each emission pathway and time horizon. This 2021 analysis will help us evaluate how drivers of roofing shingle demand potentially change as variables like wind, tropical cyclones, and hail fluctuate in different climate scenarios. Outcomes of this analysis will provide Owens Corning with the ability to ensure our production capability can adapt to climate change and ensure we successfully serve our markets as their demand for roofing products adjusts due to climate change. We are still evaluating how best to incorporate these findings within our business unit decision-making process.

Risks at Owens Corning, regardless of their relation to sustainability, are addressed through our ERM program. Each business regularly reviews its risk register to identify new or materially changed risks and address them accordingly with appropriate risk mitigation plans. Opportunities are addressed through the long-range planning process, which has a horizon of three years forward.

Additional Risks and Liabilities

Retirement Benefits Liabilities

We are committed to providing all employees with comprehensive retirement benefits. Generally, we offer these benefits via defined contribution arrangements. However, defined benefit plans may be provided in accordance with local custom to ensure a competitive overall benefits package.

Of our defined benefit obligations, 97% are payable through a fund held and maintained separately from the resources of the organization. The Canadian qualified plan is 117% funded, as determined by actuarial valuation within the past 12 months. The U.S. and the U.K. plans are less than 100% funded, also based on actuarial valuation within the past 12 months. These three plans represent 92% of the company’s defined benefit liabilities.

Our strategy for the U.S. plan is to contribute at least the minimum required amount each year and ensure that the plan is funded at 80% or greater. Other plans are funded to fully comply with local requirements. Approximately 95% of eligible U.S. employees participate in voluntary retirement savings (defined contribution) programs. Owens Corning provides an automatic 2% contribution based on salary to all U.S. employees’ 401(k) plans. The company also matches up to 6% based on individual contributions; thus, employees who maximize the company match will save 14% of salary toward retirement. New U.S. hires are automatically enrolled in our 401(k) plan. Our 401(k) plan represents approximately 93% of our contributory savings plan globally.

Photo submitted by:
Nathan Hoisington-Shaw | Granville, Ohio, U.S.
Sete Cidades, Ponta Delgata, Portugal
Cybersecurity Risk

Owens Corning is subject to risks relating to our information technology systems, and any failure to adequately protect our critical information technology systems could materially affect our operations.

We rely on information technology systems across our operations, including for management, supply chain and financial information, and various other processes and transactions. Our ability to effectively manage our business depends on the security, reliability, and capacity of these systems. Information technology system failures, network disruptions, or breaches of security could disrupt our operations, causing delays or cancellation of customer orders or impeding the manufacture or shipment of products, processing of transactions, or reporting of financial results. An attack or other problem with our systems could also result in the disclosure of proprietary information about our business or confidential information concerning our customers or employees, which could result in significant damage to our business and our reputation.

We have put in place security measures designed to protect against the misappropriation or corruption of our systems, intentional or unintentional disclosure of confidential information, or disruption of our operations. However, advanced cybersecurity threats, such as malware, ransomware, phishing attacks, attempts to access information, and other security breaches are persistent and continue to evolve, making them increasingly difficult to identify and prevent. Protecting against these threats may require significant resources, and we may not be able to implement measures that will protect against all the significant risks to our information technology systems. In addition, we rely on a number of third-party service providers to execute certain business processes and maintain certain information technology systems and infrastructure, and any breach of security on their part could impair our ability to effectively operate. Moreover, our operations in certain geographic locations may be particularly vulnerable to security attacks or other problems.

Any breach of our security measures could result in unauthorized access to and misappropriation of our information, corruption of data, or disruption of operations or transactions, any of which could have a material adverse effect on our business. We have established a range of security measures to protect against these concerns. We have implemented additional controls, security processes, and monitoring of our manufacturing systems. We have also implemented additional cloud security tools and governance processes.

We rely on third-party service providers to execute certain business processes, maintain certain IT systems and infrastructure, evaluate defenses, and implement recommendations. Moreover, our operations in certain geographic locations may be particularly vulnerable to security attacks or other problems. To combat this, we have added global information security team members to address regional security issues. We also placed great emphasis on cyber risk associated with merger and acquisition activities. The board of directors’ audit committee is responsible for overseeing the cybersecurity strategy for the company. Maryann T. Mannen is the chair of the audit committee. Our chief information officer oversees cybersecurity for the company and provides updates on cybersecurity risks to the board of directors’ audit committee regularly. Audit committee member Paul Martin has more than 10 years’ experience as chief information officer at another company, and his expertise includes oversight of cybersecurity. The audit committee reviews how we are executing against its comprehensive cybersecurity framework. Regularly, the audit committee may receive updates on efforts regarding data loss prevention, regulatory compliance, data privacy, threat and vulnerability management, cyber-crisis management, or other topics as applicable.

Risks Related to Child Labor and Forced Labor

Owens Corning’s human rights policy states that we do not and will not employ child labor or forced, slave, convict, or bonded labor. In addition, Owens Corning will not knowingly engage a supplier or distributor, nor will we enter into a joint venture with an organization that directly or indirectly, through a third party, employs child labor, forced labor, or persons who were trafficked into employment. This report offers further details, beginning on page 251.

Owens Corning supports participation in legitimate workplace apprenticeship programs, provided they comply with all applicable laws and are consistent with Articles 6 and 7 of the International Labour Organization (ILO) Minimum Age Convention No. 138 on vocational or technical education and light work.

A full summary of additional risks that directly impact our operations can be found in our Form 10-K, beginning on page 9, and in our 10-Q quarterly reports. These documents are available on our investor website.
One way Owens Corning is working to operationalize sustainability at our facilities around the world is by employing the principles of Total Productive Maintenance (TPM). TPM is a management system designed to improve productivity by empowering workers to take an active role in maintaining, operating, and improving production, and we are relying on it to make real progress toward achieving zero accidents, zero defects, and zero losses.

TPM provides a systematic way for employees to look for the abnormalities that can lead to problems over time, and to take corrective action if issues arise. Widespread adoption of TPM in our facilities helps us create an environment where people are encouraged to solve problems, and we find that this framework and mindset can be applied to sustainability efforts throughout our operations.

The Principles of TPM

TPM is based on eight pillars:

- **Training and Development (T&D)**
  - Employees are given the knowledge and skills to carry out their responsibilities safely and effectively as a member of an autonomous team.
  - Skills assessments are used to identify gaps.
  - Employee skills are improved through training and sharing of best practices.

- **Autonomous Maintenance (AM)**
  - Activities are created to restore equipment to its optimum condition and improve safety, quality, and productivity.
  - Employees are involved in the daily management of their equipment and processes.
  - Employees are empowered to prevent or fix problems, slow deterioration, and drive change throughout our culture and operations.

- **Focused Improvement (FI)**
  - TPM teams identify and quantify losses throughout the plant, and then prioritize ways to eliminate losses and assign the right resources to these tasks.
  - Methodologies are deployed to address issues and ensure continuous improvement across our operations.

- **Planned Maintenance (PM)**
  - This pillar, combined with AM, encourages proactive behavior and facilitates stable and reliable operations.
  - Supporting systems and processes enable employee engagement and data-driven continuous improvement.

- **Early Management (EM)**
  - This pillar facilitates the development of user-friendly, sustainable equipment.
  - Effective design and development of new equipment, processes, and products reduce the potential for losses and abnormalities.
  - Time between development and launch is reduced, as are costs over products’ life cycles.

- **Quality Maintenance (QM)**
  - Optimal equipment conditions are established and maintained, helping prevent losses in quality.
  - Employees receive the systems, tools, and skills needed to achieve zero defects in our operations.

- **Office and Administration**
  - Activities are stressed that increase the quality, usefulness, and timeliness of information for internal and external customers.
  - Improvements are facilitated, and administrative resources are aligned with performance needs.

- **Environmental, Health, and Safety (EHS)**
  - TPM activities are combined with EHS programs, which fosters a culture of safety among all employees.

A multifunctional group for each pillar implements processes, provides training and coaching, leads cases, and assesses adherence to methodologies.
The PM pillar of TPM builds upon the principles of 5S, which are designed to ensure that processes remain organized, disciplined, and efficient. There are five basic steps to 5S:

- **Sort**: Remove all unnecessary items from the work area.
- **Set in Order**: Organize the remaining items.
- **Shine**: Clean and inspect the work area.
- **Standardize**: Create standards that will ensure consistency going forward.
- **Sustain**: Maintain a culture of continuous improvement.

### Operationalizing Sustainability with TPM

As our plants implement TPM in their operations, they follow a strategic approach that starts with a preparation plan and focuses on daily management. This includes an analysis of baseline key performance indicators that drive accountability and results, including:

- Safety
- Quality
- Delivery
- Cost
- Production
- Morale

Each Owens Corning plant is at a different point in its TPM journey, but each is purposefully moving forward. We survey employees to help plant leaders understand their teams’ readiness for TPM and identify opportunities to improve knowledge and skills. Based on this information and best practice examples, plants independently create training workshops and team-building opportunities appropriate for their stage in the journey.

Our TPM Academy program provides opportunities for participants to share experiences and create connections that facilitate the implementation of TPM. In May 2022, the L’Ardoise, France, plant hosted 16 colleagues from the Composites and Insulation businesses, while our facility in Waxahachie, Texas, U.S., hosted over 30 leaders in September. These meetings took place in person for the first time since the COVID-19 pandemic.

TPM has helped us operationalize sustainability in many ways all around the world. As we work to reduce our environmental footprint, TPM has helped us develop processes for using production waste in the manufacturing of composite materials. This will help us divert more waste from landfills and place us closer to our 2030 goals.

TPM has strengthened our approach to safety throughout the company. We have assigned a senior EHS leader to each enterprise-wide TPM pillar team, ensuring that safety is an integral part of our approach to each pillar. We have also been employing the principles of TPM to support our healthy living initiatives. Sites are using TPM to build strategies and identify opportunities to make gains in employee engagement around health and wellness. We are also helping employees connect healthy living and TPM as they compare health to safety, injuries, and first aid incidents.
**JIPM Excellence Awards**

The Japan Institute of Plant Maintenance (JIPM), the organization that first proposed TPM and continues to advocate for its implementation around the world, has awarded several Owens Corning facilities JIPM Excellence Awards.

To be eligible for the Award for TPM Excellence, a plant must meet the following requirements:

- A minimum of three years of achievement using TPM.
- The ability to demonstrate activity based on eight pillars of TPM by all staff members.
- The completion of Step 4 for autonomous maintenance activity.
- An infrastructure for TPM activity and obtained tangible and intangible achievements.

Once a plant has received this Level 1 award and been active in TPM for an additional two years, they are eligible for the Level 2 Award for Excellence in Consistent TPM Commitment.

The Owens Corning locations listed below received recognition awards in 2022:

**Special Award (Level 3)**
- Tlaxcala, Mexico

**Consistency Award (Level 2)**
- Rio Claro, Brazil (Glass Reinforcements)
- Taloja, India
- Yuhang, China
- Tianjin, China

**Excellence Award (Level 1)**
- Apeldoorn, Netherlands
- Guangzhou, China
- Jackson, Tennessee, U.S.
- Kimchon, South Korea
- L’Ardoise, France
- Rio Claro, Brazil (Technical Fabrics)
- Besana, Italy (Glass Reinforcements)
- Suzhou, China (Alloy)
- Qingdao Novia, China (Roofing)
- Changzhou, China (Technical Fabrics)
- Fort Smith, Arkansas, U.S.
- Gastonia, North Carolina, U.S.
Owens Corning’s sustainability aspirations are rooted in the Sustainable Development Goals (SDGs) established by the United Nations (UN) in 2015. The SDGs serve as a framework that can be used by governments, businesses, and individuals as they come together to address the world’s most pressing issues, including the fight against climate change.

The 17 UN SDGs are as follows:

1. **Zero Hunger**
   - End hunger, achieve food security and improved nutrition, and promote sustainable agriculture.

2. **Quality Education**
   - Ensure inclusive and equitable quality education and promote lifelong learning opportunities for all.

3. **Good Health and Well-being**
   - Ensure healthy lives and promote well-being for all at all ages.

4. **Zero Poverty**
   - End poverty in all its forms everywhere.

5. **Gender Equality**
   - Achieve gender equality and empower all women and girls.

6. **Clean Water and Sanitation**
   - Ensure availability and sustainable management of water and sanitation for all.

7. **Decent Work and Economic Growth**
   - Promote sustained, inclusive, and sustainable economic growth, full and productive employment, and decent work for all.

8. **Industry, Innovation, and Infrastructure**
   - Build resilient infrastructure, promote inclusive and sustainable industrialization, and foster innovation.

9. **Reduced Inequalities**
   - Reduce inequality within and among countries.

10. **Sustainable Cities and Communities**
    - Make cities and human settlements inclusive, safe, resilient, and sustainable.

11. **Affordable and Clean Energy**
    - Ensure access to affordable, reliable, sustainable, and modern energy for all.

12. **Responsible Consumption and Production**
    - Ensure sustainable consumption and production patterns.

13. **Climate Action**
    - Take urgent action to combat climate change and its impacts.

14. **Life Below Water**
    - Conserve and sustainably use the oceans, seas, and marine resources for sustainable development.

15. **Life on Land**
    - Protect, restore, and promote sustainable use of terrestrial ecosystems, sustainably manage forests, combat desertification, halt and reverse land degradation, and halt biodiversity loss.

16. **Peace, Justice, and Strong Institutions**
    - Promote peaceful and inclusive societies for sustainable development, provide access to justice for all, and build effective, accountable, and inclusive institutions at all levels.

17. **Partnerships for the Goals**
    - Strengthen the means of implementation and revitalise the global partnership for sustainable development.

Definitions taken from the [Global Goals for Sustainable Development website](https://www.globalgoals.org).

1. SDGs for which we believe we have the most direct impact or influence through our core business competencies and which are also material to our business.

2. SDGs for which we believe we have a lesser and less direct impact, but which nonetheless reflect our values, policies, and outreach work. These may also have a significant impact on stakeholders’ decisions and perceptions about our company.

3. SDGs for which we perceive the least direct influence or impact, although these SDGs do have some overlap with others, our sustainability efforts, and our business. We do still measure and report on some of the indicators.
Below, we detail our progress on the SDGs where we believe we have the most direct impact. More information can be found throughout the report.

**Good Health and Well-Being**

We are committed to the idea that our people should be healthier because they work for Owens Corning, and our goals and aspirations reflect our dedication. Our efforts align with many of the specific SDG targets.

**SDG Target 3.4 | By 2030, reduce by one-third premature mortality from noncommunicable diseases through prevention and treatment, and promote mental health and well-being.**

According to data aggregated from our U.S. employees, there is a high correlation between participation in our Healthy Living platform and reduction in our disease burden, which makes increased international engagement especially encouraging. In Latin America, Europe, and Asia Pacific, regionally appropriate, fit-for-purpose systems have been developed, which are parallel to those we have in the U.S.

To help improve mental health outcomes through our Employee Assistance Program (EAP), we have created a network of EAP Navigators. These employees voluntarily offer their support for peers who may be experiencing mental health challenges and need help taking advantage of the EAP. We worked to expand this program in 2022, and our goal was to have one EAP Navigator at each U.S. location and one Navigator for each global region. We are also empowering employees to be actively involved in their health by incorporating the principles of Total Productive Maintenance into issues related to health and well-being.

**SDG Target 3.5 | Strengthen prevention and treatment of substance abuse, including narcotic drug abuse and harmful use of alcohol.**

In response to the U.S. opioid crisis, Owens Corning’s policy limits short-acting opioid prescriptions to a three-day supply. Any pills dispensed beyond the three-day limit must be authorized. This policy decision, initiated in 2018, was informed by a report from the Centers for Disease Control and Prevention indicating that addiction rates to a prescribed opioid can double after four to five days of continued use.

**SDG Target 3.6 | By 2030, halve global deaths and injuries from road traffic accidents.**

We continue to implement our policy banning cell phone use while driving for company business, and we encourage employees and their families to avoid distracted driving.

**SDG Target 3.8 | Achieve universal health care coverage (UHC), including financial risk protection, access to quality essential health care services, and access to safe, effective, quality, and affordable essential medicines and vaccines for all.**

Promoting basic health and wellness is one of our priorities for community engagement, as we seek to extend our culture of wellness beyond our workplaces and into the communities where we serve.

Within Owens Corning facilities around the world, we promote participation in our Healthy Living platform. We set a 2022 target for 75% participation in our Healthy Living platform, and this year we exceeded that target with 77% participation. In addition, we offer flu shots and COVID-19 vaccinations at select Owens Corning locations.

**SDG Target 3.9 | By 2030, substantially reduce the number of deaths and illnesses from hazardous chemicals and air, water, and soil pollution and contamination.**

We continue to make progress on our goals to reduce our emissions footprint worldwide. In addition, our product stewardship process helps ensure that all products (new and existing) are safe to make and use, perform as intended, and can be disposed of responsibly.

**SDG Target 3.A | Strengthen implementation of the World Health Organization Framework Convention on Tobacco Control in all countries, as appropriate.**

Owens Corning offers our employees many tobacco-cessation resources, including on-site groups, small group discussions, and nicotine replacement therapy and medication. We have established a goal of being 100% tobacco-free, and as of the end of 2022, 99% of our employees work in tobacco-free facilities.

**Gender Equality**

We gauge our progress toward gender equality across our workforce, and our inclusion and diversity efforts include programs for ensuring equity and increasing the participation of women in our business, including efforts that align with the following targets.

**SDG Target 5.1 | End all forms of discrimination against all women and girls everywhere.**

Owens Corning believes that an inclusive and diverse workforce leads to high engagement and innovative thinking in the workplace. We have a number of programs throughout our operations designed to promote equity in our workplaces and in the communities where we serve.
We have also implemented a robust pay equity gap review, which includes multiple processes and controls that are executed during hiring and annual merit review. This program is designed to prevent pay equity gaps. We ensure the success of this review by performing a biennial pay equity review with the assistance of a third-party vendor. The third-party review includes a robust statistical analysis of pay equity across our global salaried workforce. Consistent with our commitment to “equal pay for equal work,” Owens Corning remediates all identified and substantiated pay gaps through pay increases. The review in 2021 demonstrated that less than 1.4% of its 5,700 global salaried employees required remediation, at a total cost of less than 0.02% of annual global salaries. Further, we have implemented processes and policies to avoid inheriting unequal pay biases of prior employers.

SDG Target 5.2 | Eliminate all forms of violence against all women and girls in the public and private spheres, including trafficking and sexual and other types of exploitation.

We continue to strengthen our processes to ensure our human rights policy is implemented worldwide.

SDG Target 5.5 | Ensure women’s full and effective participation and equal opportunities for leadership at all levels of decision-making in political, economic, and public life.

In keeping with our commitment to creating an inclusive and diverse work environment, Owens Corning operates programs that foster gender equality throughout our operations, including the Women’s Inclusion Network (WIN) affinity group, which works to attract, retain, and develop outstanding women through professional development, personal development, and community involvement. In addition, Women in Operations (WIO) in the U.S. and its Composites EU counterpart, WOOPS, support and elevate the role of women in the operations team.

Women hold 29% of management positions at Owens Corning, and currently there are three women serving as directors on our board, representing 30%.

Clean Water and Sanitation

Owens Corning has established a range of goals aimed at sourcing and consuming water responsibly, and these goals are aligned with the following SDG targets.

SDG Target 6.4 | By 2030, substantially increase water-use efficiency across all sectors and ensure sustainable withdrawals and supply of freshwater to address water scarcity and substantially reduce the number of people suffering from water scarcity.

By 2030, we aim to cut in half the amount we take from local water supplies in places where water is limited in quantity or quality. In addition, we intend to ensure that our other facilities remain at the same water intensity as our base year of 2018, or lower when aggregated. We have developed context-based targets to address our potential impact on water conditions around the world. Context-based targets address both our need for water and the needs of the communities where we operate.

SDG Target 6.6 | Protect and restore water-related ecosystems, including mountains, forests, wetlands, rivers, aquifers, and lakes.

Owens Corning has begun the process of deepening our understanding of the biodiversity that exists in the areas where we maintain a presence. Through this work, we will be better equipped to discover how we can preserve and enhance biodiversity and the natural habitats that surround our operations around the world. We will develop biodiversity goals based on an understanding of the full impact of our operations and supply chain on biodiversity by 2025.

SDG Target 6.B | Support and strengthen the participation of local communities in improving water and sanitation management.

Part of our prioritization of basic health and wellness includes ensuring clean water and sanitation. In Mumbai, India, we have worked to set up sanitation and clean water stations, which benefit migrant children attending schools located around our plants. This is especially meaningful for girls reaching puberty, as the addition of bathroom facilities makes it possible for them to remain in school. By continuing their education, they move further toward gaining independence and success as adults.

Affordable and Clean Energy

By improving our efficiency across our operations and sourcing more renewable electricity, we can achieve our ultimate goal of eventually eliminating our use of fossil fuels. Our efforts align with the following SDG targets.

SDG Target 7.2 | By 2030, increase substantially the share of renewable energy in the global mix.

Owens Corning is working to bring more renewable electricity into the grid through power purchase agreements (PPAs) or virtual power purchase agreements (VPPAs), which support the development of large renewable energy projects. To expand our renewable energy platform, we have entered into four VPPAs that have added 341 MW of capacity annually. These include 125 MW of wind energy in Texas and 125 MW of wind energy in Oklahoma (both signed in 2015), as well 43 MW of wind energy in Finland and 48 MW of wind energy in Sweden. The VPPA in Sweden reached its commercial date of operation in 2021, and Finland reached commercial date of operation in 2022.
Owens Corning aspires to have contracts in place covering 100% of our global enterprise electricity by 2025, and we intend to have those contracts operational by 2030. We have also entered into a VPPA in Spain that is expected to come on line in stages throughout 2023 and 2024. The agreement involves three separate VPPAs with a contracted capacity of 81.9 MW, which are collectively expected to produce 223 GWh per year.

This agreement, along with the wind-driven VPPAs in Finland and Sweden, means that 100% of Owens Corning’s European production sites and science & technology centers will be covered by contracts and VPPAs supplying guarantees of origin enabling renewable electricity.

As we work to cut our greenhouse gas emissions in half, purchasing energy only from renewable sources is essential. In addition, we must work to reduce emissions from our processes and improve energy efficiency. In 2022, approximately 56% of our electricity came from renewable sources, which represents continued progress toward our goal.

**SDG Target 7.3 | By 2030, double the global rate of improvement in energy efficiency.**

Throughout this goal cycle, we are working to reduce energy use from both renewable and nonrenewable energy, as well as other forms of nonrenewable energy, by 20% from our baseline year of 2018. In 2022, Owens Corning increased our overall consumption of direct energy, including fuel usage in operations, by 0.2% from 2021. We increased consumption of indirect energy, which includes the use of electricity, steam, and district heating, by 0.4%. With regard to energy efficiency, we are currently at a 1% energy use reduction in 2022 compared to our 2018 base year.

Overall, our reduction can be attributed to the conservation measures we have taken to significantly reduce energy consumption and improve plant efficiency. Since 2006, Owens Corning has implemented over 1,270 energy efficiency projects in our facilities around the world. The result has been a reduction in estimated usage of more than 1.47 million MWh per year. Additionally, we offer an extensive portfolio of products that can help our customers save energy and avoid emissions. In 2022, 63% of our revenue came from this category of products.

**SDG Target 7.A | By 2030, enhance international cooperation to facilitate access to clean energy research and technology, including renewable energy, energy efficiency and advanced and cleaner fossil fuel technology, and promote investment in energy infrastructure and clean energy technology.**

In 2022, approximately 56% of our electricity across our portfolio came from renewable sources, such as wind, hydro, solar, and geothermal.

Across our portfolio, we have made innovations that help end users meet their own sustainability goals. Below is a selected list of the products we have recently introduced:

**PINK Next Gen™ Fiberglas™** insulation features a number of innovations that increase the overall positive impacts of our products. It sets a new industry standard for recycled content, it is certified made with 100% renewable electricity through power purchase agreements, and it is certified as an Underwriter Laboratories GREENGUARD® low emitting product.

**FOAMULAR® NGX™** insulation line features a proprietary low global warming potential (GWP) blowing agent blend that demonstrates a greater than 80% reduction in GWP compared to legacy FOAMULAR® insulation products.

**The PAROC® Natura** line of stone wool insulation uses low-carbon melting technology, renewable electricity, recycled waste materials, and technologies to reduce the amount of virgin raw material used and offer a product with low CO₂ emissions. The remaining emissions are compensated by reducing CO₂ emissions through the purchase of offsets in a Verified Emissions Reduction Scheme. The product line is certified as carbon-neutral by a third party, SCS Global Services.

**Decent Work and Economic Growth**

Our vision for a sustainable enterprise includes attention to environmental and social progress, human rights, and an employee experience that provides an environment with a healthy balance off challenge and optimism.

**SDG Target 8.2 | Achieve higher levels of economic productivity through diversification, technological upgrading and innovation, including a focus on high-value added and labor-intensive sectors.**

To promote technological innovation, Owens Corning has 11 science & technology centers located in key markets around the world. These facilities play a vital role in the development of solutions that meet customer needs and address global concerns regarding sustainability. In addition, we are committed to the digital transformation throughout our operations. We have developed a digital framework to address some of our key aspirations, enabling us to improve manufacturing, drive efficiency, and generate revenue.

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**The PAROC® Natura** line of stone wool insulation uses low-carbon melting technology, renewable electricity, recycled waste materials, and technologies to reduce the amount of virgin raw material used and offer a product with low CO₂ emissions. The remaining emissions are compensated by reducing CO₂ emissions through the purchase of offsets in a Verified Emissions Reduction Scheme. The product line is certified as carbon-neutral by a third party, SCS Global Services.
SDG Target 8.4 | Improve progressively, through 2030, global resource efficiency in consumption and production and endeavor to decouple economic growth from environmental degradation, in accordance with the 10-year framework of programs on sustainable consumption and production, with developed countries taking the lead.

Owens Corning is pursuing opportunities to transform our operations to a circular economy model, one in which virgin raw materials, waste, energy, and emissions are minimized through intelligent design, renewable and recycled input, energy-efficient production, and recycling of products at the end their life cycles. In doing so, we are better positioned to achieve more sustainable economic growth — ensuring that we have a net-positive impact by reducing our environmental footprint and increasing the positive impacts of our products.

By 2030, Owens Corning’s goal is to establish viable circular economy business models involving our materials and how they are used by collaborating up and down the supply chain with customers, suppliers, communities, academics, policymakers, government entities, and other organizations. We recognize the need to increase the recycled content and decrease the virgin raw materials used in our products. We plan to develop technical solutions and practical business models for our product materials and packaging to continue their use beyond their original purpose.

We are calling on our partners throughout our value chain to help us in our transition to a circular economy model and meet our 2030 science-based Scope 3 goal to reduce greenhouse gas emissions. We will rely on the companies with which we do business to help us develop strategies that will limit the extraction of virgin raw materials and seek new opportunities to keep products at the end of their life out of the landfill and remain useful within the global economy.

SDG Target 8.5 | By 2030, achieve full and productive employment and decent work for all women and men, including for young people and persons with disabilities, and equal pay for work of equal value.

We ensure equitable treatment for all employees independent of gender, age, race, or status as a member of an underrepresented population through a consistent philosophy in the design, application, and administration of total compensation programs globally. We conduct biannual pay reviews to ensure that our employees are paid equitably.

Specific to the treatment of individuals with disabilities, we sponsor an affinity group, Abilities, that provides a community within Owens Corning to foster the inclusion and growth of employees impacted either directly or indirectly by both seen and unseen physical or mental health disabilities.

SDG Target 8.7 | Take immediate and effective measures to eradicate forced labor, end modern slavery and human trafficking, and secure the prohibition and elimination of the worst forms of child labor, including recruitment and use of child soldiers, and by 2025 end child labor in all its forms.

SDG Target 8.8 | Protect labor rights and promote safe and secure working environments for all workers, including migrant workers, in particular women migrants, and those in precarious employment.

Both of the above UN SDG targets are addressed by our human rights policy. Our materiality matrix has included an emphasis on human rights since 2017, and we have devoted a section of this report to our progress. We continue to strengthen our processes to ensure that our human rights policies are implemented worldwide.

Industry, Innovation and Infrastructure

All three Owens Corning businesses (Composites, Insulation, and Roofing) engage in research and innovation to deliver products and services that bring performance and durability to infrastructure and the built environment.

SDG Target 9.1 | Develop quality, reliable, sustainable, and resilient infrastructure, including regional and transborder infrastructure, to support economic development and human well-being, with a focus on affordable and equitable access for all.

SDG Target 9.4 | By 2030, upgrade infrastructure and retrofit industries to make them sustainable, with increased resource-use efficiency and greater adoption of clean and environmentally sound technologies and industrial processes, with all countries taking action in accordance with their respective capabilities.

Regarding targets 9.1 and 9.4, we develop materials and systems that create resilient buildings and infrastructure. Fourteen of our products have received “Made with 100% Renewable Electricity and Reduced Embodied Carbon” certification. These products give commercial architects and specifiers the option of low-carbon products to build energy efficient structures.

Owens Corning manufactures several products designed for sustainable upgrades to infrastructure. More information about these products can be found beginning on page 148 of this report.
Our goal is to send zero waste to landfill by 2030. We have a two-part plan to achieve this. First, we aim to reduce waste intensity by improving efficiency and process design. We will then repurpose or recycle the remaining waste, as well as recycle waste back into our own processes wherever possible.

SDG Target 9.5 | Enhance scientific research, upgrade the technological capabilities of industrial sectors in all countries, in particular developing countries, including, by 2030, encouraging innovation and substantially increasing the number of research and development workers per 1 million people and public and private research and development spending.

We have established science and technology centers in key markets worldwide. Our 11 global science & technology centers employ scientists and engineers with expertise in a wide range of disciplines, including glass science, chemical engineering, fundamental chemistry, and much more. Our science and technology organization includes close to 450 people.

Climate Change
Owens Corning recognizes the importance of taking action to mitigate the impacts of climate change through improving energy efficiency, increasing our use of renewable energy, and reducing greenhouse gas emissions. Our efforts are aligned with the following targets.

SDG Target 12.6 | Encourage companies, especially large and transnational companies, to adopt sustainable practices and to integrate sustainability information into their reporting cycle.

We disclose sustainability performance on a number of different platforms. Due to timing and data collection requirements, we have not yet published simultaneous financial and sustainability reports.

SDG Target 12.7 | Promote public procurement practices that are sustainable in accordance with national policies and priorities.

We believe suppliers are critical partners in our sustainability efforts. We discuss our commitments, goals, and expectations for suppliers beginning on page 119 of this report.

SDG Target 12.4 | By 2030, achieve environmentally sound management of chemicals and all wastes throughout their life cycle in accordance with agreed international agreements with the framework of the 1985 Basel Convention and significantly reduce their release to air, water, and soil to minimize adverse impacts on human health and the environment.

At the end of 2022, 35% of our locations were certified to ISO 14001, which accounts for approximately 49% of our employees. In addition, 51% of our locations use our internal Owens Corning EMS, which is based on the principles of ISO 14001, accounting for approximately 38% of our employees. Thus, 86% of our locations have implemented an environmental management system, accounting for approximately 87% of our employees. Further, 45% of our locations were certified to the ISO 9001 standard for a Quality Management System (QMS) in 2022, representing approximately 58% of our employees.

We conduct life cycle assessments (LCAs) according to the ISO 14040, 14044, and 14025, as well as ISO 21930 and EN 15804, followed by a third-party review and verification of appropriate product category rules. We have conducted full LCAs on 82% of our products.

SDG Target 12.5 | By 2030, substantially reduce waste generation through prevention, reduction, recycling, and reuse.

Our goal is to send zero waste to landfill by 2030. We have a two-part plan to achieve this. First, we aim to reduce waste intensity by improving efficiency and process design. We will then repurpose or recycle the remaining waste, as well as recycle waste back into our own processes wherever possible.
Partnerships for the Goals

To fulfill our mission of building a sustainable future, Owens Corning relies on collaboration throughout our entire value chain, and through our growth we are able to improve the lives of people around the world.

SDG Target 17.3 | Mobilize additional financial resources for developing countries from multiple sources.

In 2022, the Owens Corning Foundation distributed over $6.2 million in cash contributions to nonprofit organizations. We work with several global charitable partners to identify appropriate charities in our regions around the world, perform necessary due diligence as required by the U.S. Internal Revenue Service, and then distribute the funds.

SDG Target 17.6 | Enhance North-South, South-South, and triangular regional and international cooperation on and access to science, technology, and innovation, and enhance knowledge sharing on mutually agreed terms, in particular at the United Nations level, and through a global technology facilitation mechanism.

Owens Corning is a global corporation with facilities in 31 countries and a base of suppliers located all around the world, and these partnerships have made it possible for us to engage and collaborate with a wide range of stakeholders. We have used this opportunity to facilitate the transformation to a circular economy model, in which virgin raw materials, waste, energy, and emissions are minimized through intelligent design, renewable and recycled input, energy-efficient production, and recycling of products at their end of life. This transformation includes a great deal of collaboration, with customers, suppliers, communities, academics, policymakers, government entities, and other organizations.

We have also set ambitious goals for the reduction of our Scope 3 greenhouse gas emissions, the indirect emissions that come primarily from our supply chain. The strategies we have in place to achieve these goals are outlined on page 66 of this report.

Photo submitted by:
Priyanka Ruparel | Mumbai, India
In this chapter:

- EVALUATION OF OUR MATERIALITY ASSESSMENT
- OWENS CORNING MATERIALITY GRIDS
- OPERATIONALIZING SUSTAINABILITY THROUGHOUT OWENS CORNING

Owens Corning’s work in sustainability is built on a solid foundation, one that enables us to act in a manner where we can do the most good. That means having a clear understanding of the areas where we can effectively improve our positive impacts and mitigate any potentially negative ones. By recognizing the issues that have material impacts on the world, we can develop the most effective strategies to address them.

Owens Corning is committed to objectively identifying material issues and evaluating their impact across our value chain. In support of this, we assess our materiality matrix on a five-year cycle in accordance with AA1000 methodology. Our most recent Materiality Assessment was conducted in 2019.

As part of our ongoing processes, we continue to evaluate significant changes to our operations for potential risks or areas that could impact our stated goals, either positively or negatively. We have also developed a process of stakeholder engagement, reviewing input from both internal and external groups.
**Stakeholder Engagement**

Owens Corning interacts with a wide range of stakeholders on a regular basis. These stakeholders range from investors, customers, suppliers, community members, trade associations, and NGOs, to name a few. Through these engagements, we seek to discuss our efforts accurately and transparently, understand concerns, and work together for solutions. The table below summarizes our stakeholders and the methods we use to engage with them.

<table>
<thead>
<tr>
<th>Stakeholder Consultation and Communication</th>
</tr>
</thead>
<tbody>
<tr>
<td>To better understand our stakeholders’ expectations and priorities, we actively engage and consult with individuals, groups, and organizations that are impacted by our business operations. We rely on stakeholder guidance and direction to choose our business strategies and priorities, and from them we learn what is and is not working. We invite stakeholders to communicate with us on any economic, environmental, or social topic related to our business. The collective stakeholder input is crucial to the board’s fulfillment of its duties and responsibilities. It directly informs the board’s identification and management of economic, environmental, and social matters and their impacts, risks, and opportunities. We also invite all our stockholders and other interested parties to communicate with our board on any critical concerns they might have about our business. Interested parties may communicate with the lead independent director or any other non-management director by sending an email to <a href="mailto:non-managementdirectors@owenscorning.com">non-managementdirectors@owenscorning.com</a>. All such communications are promptly reviewed for evaluation and appropriate follow-up by our general counsel and/or our vice president, internal audit. A summary of all communications is reported to the non-management directors. This does not include communications considered to be advertisements or other types of “spam” or “junk” messages unrelated to the board’s duties or responsibilities, which are discarded without further action. In addition, stakeholders and other interested parties may communicate sustainability concerns with the senior vice president and chief sustainability officer (CSO) via his email address, his assistant, our sustainability email address, or telephone. All business-appropriate inquiries are handled by the CSO directly, or they are passed on to corporate communications, legal, or other company function for appropriate action or response. Communications alleging fraud or serious misconduct by directors or executive officers are immediately reported to the lead independent director. Complaints regarding business conduct policies, corporate governance matters, accounting controls, or auditing are managed and reported in accordance with Owens Corning’s existing audit committee complaint policy or business conduct complaint procedure, as appropriate.</td>
</tr>
</tbody>
</table>
Material Topics

We have selected the following issues as our material sustainability topics. They were selected after close review of the company’s prior work in sustainability and materiality, research into best practices, examination of peer companies within our industry, and interviews with subject matter experts. Each topic is addressed in detail throughout this report.

### SUSTAINABILITY MATERIALITY DEFINITION

<table>
<thead>
<tr>
<th>Topic</th>
<th>Definition</th>
<th>Most Relevant SDGs</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Air Quality Management</strong></td>
<td>As a manufacturer, we have the opportunity to improve our processes and, in doing so, reduce our impact on air quality in the areas where we operate.</td>
<td><img src="image" alt="7" /> <img src="image" alt="12" /> <img src="image" alt="13" /></td>
</tr>
<tr>
<td><strong>Biodiversity</strong></td>
<td>Biodiversity describes the variety of life that keeps nature’s ecosystems in balance. Owens Corning is committed to preserving and enhancing biodiversity and the natural habitats that surround our operations around the world. We seek to understand and manage the biodiversity impact of all our own operations, as well as gain insights into the impacts of our supply chain on biodiversity.</td>
<td><img src="image" alt="5" /> <img src="image" alt="12" /> <img src="image" alt="13" /> <img src="image" alt="14" /> <img src="image" alt="15" /></td>
</tr>
<tr>
<td><strong>Circular Economy</strong></td>
<td>A circular economy is one in which virgin raw materials, waste, energy, and emissions are minimized through intelligent design, renewable and recycled inputs, energy-efficient production, and enabling the recyclability of products at the end of their life cycles. We are committed to supporting the global transformation to a circular economy.</td>
<td><img src="image" alt="7" /> <img src="image" alt="12" /> <img src="image" alt="13" /> <img src="image" alt="17" /></td>
</tr>
<tr>
<td><strong>Combating Climate Change</strong></td>
<td>Owens Corning understands the importance of climate action, and we take our role in the fight against climate change seriously. We have embraced a science-based target for our greenhouse gas emissions in line with the most stringent standard, designed to limit global warming to 1.5° Celsius. We also have a target to reduce our Scope 3 emissions, representing emissions from our supply chain.</td>
<td><img src="image" alt="7" /> <img src="image" alt="12" /> <img src="image" alt="13" /></td>
</tr>
<tr>
<td><strong>Community Engagement</strong></td>
<td>Owens Corning strives to contribute to thriving communities where we work, where we live, and where we have the potential to make a positive impact.</td>
<td><img src="image" alt="3" /> <img src="image" alt="6" /> <img src="image" alt="17" /></td>
</tr>
<tr>
<td><strong>Employee Experience</strong></td>
<td>We believe our employees should grow as people and as professionals while working at Owens Corning. We seek to attract the best people and provide every employee with the opportunity to develop and reach their full potential, in a work environment full of both challenge and optimism.</td>
<td><img src="image" alt="3" /> <img src="image" alt="5" /> <img src="image" alt="8" /> <img src="image" alt="10" /></td>
</tr>
<tr>
<td><strong>Energy Efficiency &amp; Sourcing Renewable Energy</strong></td>
<td>We are determined to continue decreasing our dependence on fossil fuels, both by improving efficiency in our operations and by meeting more of our energy demands through renewable sources.</td>
<td><img src="image" alt="7" /> <img src="image" alt="12" /> <img src="image" alt="13" /></td>
</tr>
<tr>
<td><strong>Health &amp; Wellness</strong></td>
<td>We promote a healthy and tobacco-free lifestyle for all our employees and their families. We are committed to ending lifestyle-induced disease in our employees, as well as promoting mental, physical, and financial well-being.</td>
<td><img src="image" alt="3" /> <img src="image" alt="17" /></td>
</tr>
<tr>
<td><strong>Human Rights &amp; Ethics</strong></td>
<td>Owens Corning has the privilege of working with people all over the world. We believe that this privilege comes with the responsibility to treat all people with dignity and respect and to protect their fundamental rights. We are committed to being a leader in setting and upholding the highest standards for safeguarding human rights.</td>
<td><img src="image" alt="3" /> <img src="image" alt="17" /></td>
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<tr>
<td>Inclusion &amp; Diversity</td>
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<tr>
<td>We aim to foster an environment in which all our people are engaged and working together to create a fair, healthy, and high-performing organization. We define diversity broadly to include race, ethnicity, gender, religion, sexual orientation, and language, as well as family background, socioeconomic background, interests, and experience. Inclusion enables employees to feel valued, understood, and inspired to bring their whole selves to work.</td>
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<tr>
<th>Living Safely</th>
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<tbody>
<tr>
<td>As a company, we are committed to promoting safety for all. We believe that all accidents are preventable, at work and at home.</td>
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<tr>
<th>Product Innovation &amp; Stewardship</th>
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<tbody>
<tr>
<td>We work to utilize innovation and the principles of product stewardship to ensure that our products are fundamentally safe and sustainable in their design, creation, use, and eventual disposal. We also seek to drive continual improvement in the sustainability of the products we offer, both in their creation and in their ability to help the world meet its sustainability needs.</td>
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<tr>
<th>Responsible Water Sourcing &amp; Consumption</th>
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<tbody>
<tr>
<td>We are committed to using water in an intelligent, sustainable way across the company. We operate in a number of different regions across the world, some of which are in areas of higher water stress than others. Through reuse, recycling, and efficiency, we strive to consume less water in our operations. We also must understand where our water use is most impactful, to set informed targets for water reduction.</td>
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<tr>
<th>Supply Chain Sustainability</th>
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<tbody>
<tr>
<td>We strive to hold our suppliers to the same high standards we hold ourselves. We see our suppliers as key contributors to our overall sustainability vision, and we seek to ensure all our suppliers fully comply with all applicable legislation, regulations, and legal requirements on human rights, labor, the environment, anticorruption, and trade and customs.</td>
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<tr>
<th>Sustainable Growth</th>
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<tbody>
<tr>
<td>As a company with sustainability at our core, we aim to align our company’s growth with sustainable trends and positive global impact. We achieve sustainable growth through serving our customers, fulfilling their need for quality, sustainable products. We are working to build a financially successful company with sustainability at its core.</td>
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<tr>
<th>Waste Management</th>
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<tbody>
<tr>
<td>Our ambition is to mitigate the waste that we produce by redesigning the process to avoid its creation, then repurposing it whenever possible. We are committed to redefining waste, continuously looking for beneficial uses for our byproducts and other waste materials.</td>
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</tr>
</tbody>
</table>

We have set 2030 sustainability aspirations for each of these Material Topics. A summary of these aspirations — and our progress toward achieving them — can be found in the next section.
EVALUATION OF OUR MATERIALITY ASSESSMENT

In 2022, we conducted another refresh of the 2019 Materiality Assessment for the company as a whole and for each region. Through this process, we sought to confirm the continued relevance of the existing Material Topics and their relative positioning within the materiality matrix visuals. The refresh and review process can be described in three steps:

- Reassess scopes of Material Topics and input data for material topics.
- Refresh the AI-driven aspects of the assessment to incorporate new industry and peer benchmark, regulatory, policy, and media data into the models.
- Perform a sustainability review to determine if the materiality assessment conducted in 2019 continues to accurately represent the company’s sustainability strategy, impacts, and goals, or if there has been a significant enough change to the company, strategy, or model inputs to require further revisions.

In 2022, the company continued to advance its strategy to strengthen its core building and construction products and expand into new product adjacencies. The company acquired WearDeck, a premium producer of composite decking and structural lumber for commercial and residential applications, and Natural Polymers, an innovative manufacturer of spray polyurethane foam insulation. We also took actions to strengthen and expand existing product lines, announcing a new operationally controlled venture with Pultron Composites to produce our industry-leading fiberglass rebar, and we acquired the remaining 50% interest in Fiberteq, a U.S.-based joint venture producing high-value nonwoven fiberglass mat for roofing applications.

With these transactions came an opportunity to reexamine our approach to sustainability materiality. In 2021, we developed a process for assessing the materiality impact of new acquisitions, which examines aspects such as the acquisition’s size and location, the products they make, the markets they serve, their environmental footprint, and their social impacts such as safety and inclusion and diversity. This process enables us to determine if the acquisitions are significantly impactful in scope or scale compared to our company. This can then lead to updates to our sustainability priorities and impacts that reflect both our existing company and the acquisitions.

Based on the reviews in 2022, it was determined that the transactions did not require an update of our materiality assessment topic scopes, or relative matrix positions. This was due to the alignment within Owens Corning’s existing product mix and markets served, as well as each entity’s small size relative to Owens Corning as an enterprise. Despite not requiring an update to our sustainability materiality, the reviews are an important step to ensure the consistent consideration of new acquisitions, and this process can continue to be used in the future as well. As we work to fully integrate the companies into our portfolio, we will have a better understanding of the ways we can drive sustainability within them, and how these locations can help us become a more sustainable company overall.

Additionally, a sustainability review was conducted of our company’s sustainability Material Topics, including a review of scopes, topic mapping, and the preliminary materiality matrix data, taking into account the changes due to refreshing our indirect stakeholder data sources. Through this assessment, it was determined that some topics did have slight movements in their weighting due to the new data. Despite these minor movements, the fundamental positions of the Material Topics, such as where topics lie in regions of the graph, were not significantly changed, and the Material Topics and their visual representations continue to represent Owens Corning’s material sustainability topics accurately.
OWENS CORNING’S MATERIALITY GRIDS

The materiality matrices below are structured to adhere to standards set forth by the Global Reporting Initiative (GRI). In contrast with traditional matrices, this type of matrix reflects the significance of environmental, social, and governance (ESG) impacts to the company, as well as the influence that a given material topic has on stakeholders in their assessments and decision-making. In addition, we have developed grids that reflect materiality concerns across all our regions:

The completed matrices reflect the following regions:
- Americas
- Asia Pacific
- Europe

Global Materiality

<table>
<thead>
<tr>
<th>Relevance to Company Environmental, Economic, and Social Impacts</th>
<th>Influence on Stakeholders</th>
</tr>
</thead>
<tbody>
<tr>
<td>Product Sustainability</td>
<td>Environmental Sustainability</td>
</tr>
</tbody>
</table>

Regional Assessment Results | Americas Materiality

<table>
<thead>
<tr>
<th>Relevance to Company Environmental, Economic, and Social Impacts</th>
<th>Influence on Stakeholders</th>
</tr>
</thead>
<tbody>
<tr>
<td>Product Sustainability</td>
<td>Environmental Sustainability</td>
</tr>
</tbody>
</table>
Regional Assessment Results | Asia Pacific Materiality

- Product Sustainability
- Environmental Sustainability
- Social Sustainability

Regional Assessment Results | Europe Materiality

- Product Sustainability
- Environmental Sustainability
- Social Sustainability
Owens Corning recognizes the importance of understanding material issues, their influence on stakeholders throughout our value chain, and their relevance to our environmental, economic, and social impacts. We also believe that our approach can evolve over time, and they can be tailored to meet the needs of the various regions where we operate.

Even with the flexibility inherent in our approach, we believe that these are the material issues that serve as our guiding principles. Bringing the ideals they stand for to fruition is something that happens each day — in each of our facilities around the world — as our people everywhere develop the solutions that will steer us toward our goals. Throughout this report, you’ll see examples of the many ways our people and products are making the world a better place, led by the concepts outlined here.

Photo submitted by:
Sachin Bhoir | Taloja, India
Owens Corning is beginning a new chapter in our sustainability story.

In this phase of our journey, we are taking the sustainability aspirations we have created for ourselves and putting them into practice across our operations. We believe sustainability starts with our values and is then integrated into the work our people do every day.

Our revised approach is reflected in this year’s report. We have framed the work we are doing in keeping with the new set of strategic priorities established by our new chief sustainability officer. More information about these strategic priorities can be found on page 5.

While this year’s report is structured around our new strategic priorities, our efforts are still guided by the materiality topics discussed on page 30.
OPERATIONALIZING SUSTAINABILITY

Owens Corning is creating an environment where every employee is aware of the role they can play as sustainability champions in our organization. Operationalizing sustainability will help provide us with a clearer path toward achieving our 2030 sustainability goals.

In 2019, our executive team began to develop our 2030 goals, aligning them with the U.N. Sustainable Development Goals, with special attention on current and future needs. The intent was not to set targets we know we can reach; instead, the emphasis is on key areas where work is needed to ensure a sustainable future for the world. We selected 2018 as our base year as it was the most recently completed calendar year.

Energy Efficiency & Sourcing Renewable Energy

We are determined to continue decreasing our dependence on fossil fuels, both by improving efficiency in our operations and by meeting more of our energy demands through renewable sources.

By 2030, we intend to achieve the following:

Reduce our energy use by 20% over our baseline year of 2018. This includes both renewable and nonrenewable electricity, as well as other forms of nonrenewable energy.

Source 100% renewable electricity, and work to reduce emissions from our processes.

![2030 Energy Efficiency Graph](image1)

![2030 Renewable Electricity Graph](image2)

*Nonrenewable energy includes, but is not limited to, natural gas, fuel oil, gasoline, diesel, propane, and liquefied petroleum gas.*
Combatting Climate Change

We understand the importance of climate action, and we take our role in the fight against climate change seriously. We have embraced a science-based target for our greenhouse gas emissions in line with the most stringent standard, designed to limit global warming to 1.5°C Celsius over preindustrial levels. We also have a target to reduce our Scope 3 emissions, representing those from our supply chain.

By 2030, our goal is a 50% reduction in absolute Scope 1 and Scope 2 market-based GHG emissions from the base year of 2018.

Progress toward our GHG emissions goals is made possible through several key programs, including the following:

- Implementation of energy efficiency initiatives across our enterprise
- Evaluation of combined heat and power
- Heat recovery
- Expansion of renewable sources to replace grid energy
- Blowing agent conversion

We also have a goal for 2030 to reduce absolute Scope 3 emissions by 30%, compared to the base year of 2018.

Despite reductions in Scope 3 emissions from fuel- and energy-related activities, total annual Scope 3 emissions rose in 2022 due to increases in emissions from the categories of purchased goods and services, upstream transportation and distribution, and downstream transportation and distribution, which are categories strongly correlated to factors stemming from production increases and overall growth, such as third-party foam production.
**Air Quality Management**

As a manufacturer, we have the opportunity to improve our processes and, in doing so, reduce our impact on air quality in the areas where we operate.

**By 2030, we will reduce the aggregate intensity of the emission of volatile organic compounds (VOCs) and fine particulate matter (PM2.5) by 50%.

<table>
<thead>
<tr>
<th>Year</th>
<th>VOC Emissions Intensity</th>
<th>PM2.5 Emissions Intensity</th>
</tr>
</thead>
<tbody>
<tr>
<td>2018 Baseline</td>
<td>0.324 (7%)</td>
<td>0.304 (6%)</td>
</tr>
<tr>
<td>2019</td>
<td>0.292 (10%)</td>
<td>0.294 (11%)</td>
</tr>
<tr>
<td>2020</td>
<td>0.234 (28%)</td>
<td>0.278 (14%)</td>
</tr>
<tr>
<td>2021</td>
<td>0.194 (40%)</td>
<td>0.236 (30%)</td>
</tr>
</tbody>
</table>

This improvement of 40% is due to equipment upgrades and improved efficiencies.

**Protecting Biodiversity**

We are committed to preserving and enhancing biodiversity and the natural habitats that surround our operations around the world. We seek to understand and manage the biodiversity impact of all our own operations, as well as gain insights into the impacts of our supply chain on biodiversity.

We are currently working to understand the full impact of our operations, and by 2025, we will establish our specific 2030 biodiversity goals based on our findings.
Responsible Water Sourcing & Consumption

We are committed to using water in an intelligent, sustainable way across the company. We operate in a number of regions across the world, some of which are in areas of higher water stress than others. Through reuse, recycling, and efficiency, we strive to consume less water in our operations. We also must understand where our water use is most impactful, to set informed targets for water reduction.

By 2030, we will cut in half the amount we take from local water supplies at facilities where water is limited in quantity or quality. In addition, we intend to ensure that our other facilities remain at the same water intensity level, or lower when aggregated, compared to our base year of 2018.

Waste Management

Our ambition is to mitigate the waste we produce by redesigning the process to avoid its creation, then repurposing it whenever possible. We are committed to redefining waste, continuously looking for beneficial uses for our byproducts and other waste materials.

By 2030, we will send zero waste to the landfill.

We have a two-part approach toward achieving this goal:

■ Reduce waste intensity by improving efficiency and process design.
■ Repurpose or recycle the remaining waste.
  
  We will also recycle waste back into our own processes whenever possible.

Although we have seen a small decline in waste intensity at the enterprise level since 2018, this has been offset by an increase in production volumes. This has resulted in an overall increase in waste to landfill (WTL) for the enterprise. The primary increase in WTL comes from our Composites and Roofing businesses. The Composites business has seen an increase in waste intensity, primarily due to increases in quality issues related to raw materials, weather-related concerns, and staff turnovers throughout our operations. The decline in diversion in our Roofing business is mainly attributable to a loss in the number of outlets for our waste. Many outlets faced significant challenges during the COVID-19 pandemic, and several of them went out of business as a result.
Building a Circular Economy

By 2030, we will establish viable circular economy business models involving our materials and how they are used. We can accomplish this by:

- Increasing recycled content and decreasing virgin raw materials used in our products.
- Developing technical solutions and practical business models for our product materials and packaging, so they can be used for beneficial purposes even after they are no longer used for the original purpose.
- Collaborating up and down the supply chain, with customers, suppliers, communities, academics, policymakers, government entities, and other organizations.

Our circular economy efforts are focused in two areas:

- **Manufacturing**
  This work focuses on meeting our 2030 waste management goals — reducing the intensity of waste generated by our processes by 50%, and then finding ways to reuse or recycle the rest — as well as our efforts to expand the use of recycled materials in our manufacturing operations and our products, across all businesses.

- **End-of-life solutions**
  We are seeking innovative technologies and business models for our products and materials to be reused and repurposed indefinitely. This work includes internal partnerships among research and development, commercial, and corporate development to shape the vision and execution in this area. We also engage with external partners to develop end-of-life solutions for our products, as well as the products where our materials are used.

The following are some recent examples of our efforts to establish circularity:

- **Take-back models** encourage manufacturers to accept responsibility for downstream waste from customers using their products. For Owens Corning, this can include waste generated during construction, subsequent fabrication, installation, or protective packaging. In addition to long-standing programs in Sweden and Finland, our FOAMULAR® plant in Gresham, Oregon, U.S., initiated a take-back partnership with one of our customers in 2022.

- **Shingle recycling** has long been a priority for Owens Corning. In 2022, we announced an important step in our efforts to reclaim 100% of the shingle to eliminate product waste. We launched workstreams focused on two methods — recycling used shingles into new shingles, and another recycling shingles into asphalt pavement.

- Owens Corning is also a partner in the ZEBRA (Zero wastE Blade ReseArch) project in Europe, a cross-sector consortium working to develop the first 100% recyclable wind turbine blade. In 2022, the project achieved a milestone with production of the first prototype blade, with our wind science and technology team developing new high-performance glass compatible with the resin. As a material engineering partner, we also delivered a test matrix to support blade design and producing and delivering 25 tons of fabrics.

Photo submitted by:
Josh Strake | Granville, Ohio, U.S.
Supply Chain Sustainability

We strive to hold our suppliers to the same high standards we hold ourselves, and they have an important role to play in our efforts to build a circular economy. We see our suppliers as a key contributor to our overall sustainability vision, and we collaborate with suppliers to increase transparency around the raw materials we use in our products.

In addition, we seek to ensure all our suppliers fully comply with all applicable legislation, regulations, and legal requirements on the environment, as well as human rights, labor, anti-corruption, and trade and customs.

We have set the following 2030 goals for supply chain sustainability:

100% of our suppliers will meet our Supplier Code of Conduct requirements, with special attention to human rights issues such as safety and forced labor.*

Progress toward this goal is calculated each year through a sampling of suppliers, using our supplier sustainability survey. In 2022, 186 suppliers from around the world participated in this survey.

### Supplier Code of Conduct Compliance

<table>
<thead>
<tr>
<th>Year</th>
<th>Goal: 100%</th>
<th>2018 Baseline</th>
<th>2019</th>
<th>2020</th>
<th>2021</th>
<th>2022</th>
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</thead>
<tbody>
<tr>
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<td>95%</td>
<td>96%</td>
<td>95%</td>
<td>98%</td>
<td>96%</td>
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</tr>
</tbody>
</table>

100% of our global sourcing team will be trained and recertified annually on sustainability.*

A standardized training process has been implemented across all global sourcing positions, and this will be used to facilitate category strategies going forward. In 2022, training was conducted, either in-person or online, with 100% of global sourcing team members.*

The sustainability training provides a baseline understanding and knowledge of sustainability concepts that are relevant for our sourcing professionals, including the Supplier Code of Conduct and Owens Corning’s overall sustainability goals. In addition, the training covers more general concepts such as the circular economy, decarbonization, and environmental, social, and governance (ESG) topics. The training video has been automated using a screen recording platform, and training completion is tracked through our intranet site.
LEADING THROUGHOUT THE WORLD

The world has changed dramatically since Owens Corning first embarked on our sustainability journey. While financial growth remains an imperative among many stakeholders, the demand for solutions that reduce the environmental impact of buildings and infrastructure has increased dramatically. Owens Corning is poised to meet that demand, with products that deliver sustainability advantages without compromising performance.

We aim to align our company’s growth with sustainable trends and positive global impact. We achieve sustainable growth through serving our customers, fulfilling their need for quality, sustainable products. We are working to build a financially successful company with sustainability at its core.

Addressing Secular Trends in Our Industry

Owens Corning products meet a range of customer needs across all global markets. These needs extend beyond excellent performance — increasingly, we are seeing an emphasis on sustainability and energy efficiency from our customers. Our portfolio of products and systems places us in a position to address these, and other, key secular trends. This includes those that are more industry-specific, such as modular building trends and the skilled labor shortage, as well as more generalized trends such as digital acceleration and customer and channel consolidation.

In addition, Owens Corning has identified several trends that represent further opportunities for sustainable growth over the next several years.

■ Increased premium on living spaces. The global pandemic has changed how we think about our homes, both in terms of functionality and comfort. This new emphasis on cultivating inviting and useful living spaces will continue to drive investments in new residential housing and renovation in the U.S. and abroad. Specifically, insulation is one of the best ways to improve energy efficiency, which can help people lower their energy bills. It also provides great indoor comfort and sound reduction, helping make homes even more livable.

■ Changing construction practices. Even before the pandemic, we saw how labor shortages were impacting construction practices and cycles. Since early 2020, this trend has accelerated, creating the need for multi-material and prefabricated construction solutions that can drive efficiencies.

■ Demand for sustainable solutions. Homeowners are increasingly prioritizing greenhouse gas reductions, improvements in energy efficiency, and the development of more renewable energy sources for their homes. Additionally, governments at all levels are requiring increasingly stringent standards for sustainability. Both factors are driving new specifications throughout the industry. One example of the latter is the Energy Performance in Buildings Directive (EPBD), an important piece of legislation designed to help achieve the goals set forth in the EU Green Deal. The European Parliament proposed that by 2030, all new buildings in the European Union will be zero-emission buildings, with a 2027 deadline for new buildings occupied, operated, or owned by public authorities. In addition, they propose that all building stock be zero-emission by 2050. Another EU initiative, the Renovation Wave, aims to double annual energy renovation rates in the next 10 years.

■ Investment in infrastructure. We expect that upgrades to roads and bridges will continue to be prioritized around the world over the next decade. We also expect that these investments will call for more durable building solutions, which will increase their sustainability over time.

Acquisitions and Joint Ventures Drive Growth

As part of our commitment to remaining responsive to the trends that are shaping our industry — and our responsibility to a better future — we have developed a long-term strategy designed to expand our market opportunities. In alignment with one of our key pillars of this strategy, we intend to strengthen our position in core building and construction product solutions. In 2022, we announced several important acquisitions and entered into joint ventures, all of which are in service to our long-range strategies for growth.

■ WearDeck is a premium composite decking and structural lumber manufacturer. This acquisition will help us pivot our Composites business to focus on high-value material solutions within the building and construction space.

■ Natural Polymers manufactures spray polyurethane foam insulations for building and construction applications. Many of its products are UL GREENGUARD certified and designed to minimize odors and VOC emissions before, during, and after application.

■ Owens Corning Reinforcement Solutions LLC is a joint venture with New Zealand-based Pultron. This agreement increases market access to PINKBAR®+ Fiberglas™ Rebar, which is used for flatwork and residential applications, and MATEENBAR™ Fiberglas™ Rebar, which is used for heavy-load structural applications.

■ Fiberteq produces high-quality wet-formed fiberglass mat (WFM) for roofing applications. This is part of our investment in and growth of our Nonwovens and Composites businesses, as well as our external customers as we increase our North American capacity in WFM.

As we pursue the strategic priorities that we believe will lead us to even greater growth, we recognize that the work we are doing today reflects our guiding purpose — our people and our products make the world a better place and will help us build a company that is truly sustainable in every sense of the word.
In addition to operationalizing emissions reduction across our sites, we are working to reduce embodied carbon from our products. In the long term, we seek to eliminate them altogether. Embodied carbon refers to the total amount of greenhouse gases associated with manufacturing products, from raw material extraction, transportation of those raw materials to manufacturing sites, and their ultimate processing, and can include its transportation to construction site, emissions during use, and disposal.

Decarbonization — the elimination of embodied carbon — requires us to consider the total impact of our products at every step of their life cycle, beginning at the design phase and continuing on to the end of their life. In order to achieve our decarbonization aspirations, we must increase the recycled content in our products, improve our supply chain logistics, and develop end-of-life solutions for materials.

- **Life Cycle Assessments (LCAs)** are comprehensive measurements of a product’s environmental footprint at all its stages — including greenhouse gases — from the extraction of raw materials, through processing, manufacturing, and use, and all the way to its eventual disposal or recycling.

- **The Ecodesign Strategy Wheel** is a brainstorming tool used to empower product designers to consider sustainability strategies at every stage of the innovation process.

- **The Embodied Carbon in Construction Calculator (EC3)** helps designers and specifiers look at a project’s overall embodied carbon emissions, enabling the specification and procurement of low carbon options.

- **The Emissions Savings Calculator** to help architects and specifiers better understand how FOAMULAR® NGX™ insulation can reduce the global warming potential of their projects.

### Products with Less Embodied Carbon

Across our insulation portfolio, we offer a range of products with a reduced carbon footprint. One notable example is **PAROC® Natura insulation**, a carbon-neutral line of stone wool insulation that uses low-carbon melting technology, renewable electricity, recycled waste materials, and purchased carbon offsets to minimize the amount of CO₂ emitted during the manufacturing process.

**FOAMULAR® NGX™** insulation is optimized to demonstrate greater than 80% reduction in global warming potential compared to legacy FOAMULAR® XPS insulation. It provides the same benefits with a reduced carbon footprint.

A number of Owens Corning products are certified as made with 100% renewable electricity. These products, which are part of our reduced embodied-carbon portfolio, are certified in accordance with SCS Global Services’ certification protocol.

### Sustainable Product Innovations

In 2022, we introduced the following products, each of which deliver sustainability advantages:

- **Thermafiber® Fire & Sound Guard® Plus** mineral wool batt insulation provides thermal performance, noise control, and fire resistance in residential and light commercial construction applications. It contains a minimum of 70% recycled content and has a certified EPD and a published HPD. Thermafiber® Fire & Sound Guard® Plus has low density, offering more available square footage in bags and trucks.

- **Thermafiber® RainBarrier® Dark™** is an extension of our RainBarrier® line, featuring a black veil that provides aesthetic benefits along with performance. Thermafiber® RainBarrier® Dark contains a minimum of 70% recycled content and meets the requirements for LEED® and Green Globes certification.

- **PAROC® Pro Wired Mat LE** is a heavy-duty noncombustible stone wool wired mat insulation with low emission binder technology and galvanized net for industrial applications. It meets the requirements for LEED® certification.
REINFORCING OUR FOUNDATION

Our work to reduce our environmental impact can be seen throughout our enterprise, from leadership at the board level to our sustainability team to the actions of our 19,000 employees worldwide.

We have been able to build upon this solid foundation, expanding our definition to include the well-being of people everywhere — including our own people. Our employees' safety and health also vital components of our approach to sustainability. The progress we have made on these material topics demonstrate our commitment to improving the lives of our people.

Living Safely

Eliminating the risks that lead to accidents, work-related illnesses, and other safety incidents is imperative. We recognize that these incidents can have a real — and occasionally severe — impact on the lives of our people and their families. It is incumbent upon us to help create an environment where the potential impact of all incidents and especially potentially serious safety events is minimized and ultimately eliminated.

**By 2030, we aspire to achieve the following goals:**

Make it impossible for injuries to occur. Ideally, we will do this by designing or redesigning equipment and processes with inherently low levels of risk. With the baseline level of risk minimized, engineering level controls will be applied as the primary tool in mitigating whatever level of risk remains. When the hazard cannot be eliminated, and an engineering solution is not possible, we will continue to implement strong warning, administrative, and personal protective equipment (PPE) controls.

In new or newly acquired sites, achieve a level of safety at least equivalent to the rest of Owens Corning within one year.

Since 2020, Owens Corning has acquired several companies and entered into a joint venture. Ensuring that these companies deploy and adhere to our standards, and apply our safety processes to their operations, will be a key focus of our safety efforts. We are working toward this goal by ensuring that these newly acquired companies have EHS leaders on staff, which may involve either hiring for this position or assigning EHS responsibilities to existing personnel. The Integration Management Office has been established to facilitate the overall integration process, and EHS representatives are participating in this effort.

Emphasize the elimination of risks that could lead to the most serious injuries, rather than concentrating only on the most frequent ones.

We aspire to eliminate all employee, contractor, and visitor injuries and occupational illnesses at work and at home, beginning with those that have the most serious consequences. While Owens Corning has a long-standing commitment to safety, we recognize that we must remain vigilant as we work toward our 2030 goals.

Our 2022 recordable incident rate* was **0.65**

This is **80%** below the industry average, as reported by the U.S. Bureau of Labor Statistics for 2021 (the most recent data available).

In addition, **49%** of our global facilities were injury-free in 2022.

The severity of our incidents, measured by our lost-time injury frequency rate**, was **1.68**

* Number of injuries x 200,000 / total labor hours
** Lost workday cases x 1,000,000 / total labor hours

Health & Wellness

By 2030, we aspire to eliminate all lifestyle-induced disease and enable the best possible quality of life — where people flourish and are healthier because they work for Owens Corning.

While complying with privacy laws and local expectations, we will use accessible data, as well as health and behavioral science, to define metrics that will guide our strategies and tactics to achieve our goals. We will be guided by the frameworks established by the U.S. Healthy People 2030 as well as the WHO Global Action Plan. Each framework is based on indicators that measure both health risks and the burden of disease around the world.
LIVING OUR VALUES

Our approach has evolved over time, in keeping with the changes that have impacted society as a whole, from issues of gender and racial equity to the expectations of a changing workforce. Through it all, our core values guide us to ensure that we can fulfill our aspirations toward a future that delivers a better quality of life for people everywhere.

Community Engagement

By 2030, 100% of our employees will be actively engaged in their communities through company-sponsored activities.

We had set a target for 100% facility engagement by the end of 2022, which served as a foundation for our broader 2030 goal. While we did not achieve this target, due to declines related to the COVID-19 pandemic, company-sponsored community outreach continued to rebound. We are proud of the fact that we achieved 100% facility engagement in North America and 80% facility engagement globally, as it demonstrates our employees’ eagerness to give back to their communities.

<table>
<thead>
<tr>
<th>Year</th>
<th>Number of Volunteer Experiences</th>
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<td>2021</td>
<td>6,240</td>
</tr>
<tr>
<td>2022</td>
<td>8,650</td>
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We are pleased to note that volunteerism among our employees has not only risen above pandemic-driven lows, but it has exceeded pre-pandemic levels.
Inclusion & Diversity

By 2030, we aspire to:

- Build and support a diverse workforce and leadership teams that reflect the communities in which we live, work, and serve.
- Retain diverse candidates proportional to the communities in which we live, work, and serve.
- Increase internal succession with an emphasis on expanding the number of candidates to include women, underrepresented minorities, and representation of cultures from around the world.
- Demonstrate transparency regarding pay equity through periodic third-party reviews and ongoing internal analytics.

We have formalized our commitment to these goals by setting specific targets that quantify our inclusion and diversity aspirations.

People of Color in Leadership

As part of our 2030 goals, we have set a target that people of color will fill 22% of our U.S. mid-level, director, and vice president-level roles. In 2022, our representation for these roles was 17%, while overall, approximately 47% of U.S. hires were people of color.*

Women in Leadership

We have established a 2030 target in which 35% of our global mid-level leader, director, and vice president roles are filled by women.*

### Percentage of People of Color Leaders in the U.S.

<table>
<thead>
<tr>
<th>Year</th>
<th>Percentage</th>
<th>Goal: 22%</th>
</tr>
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<tbody>
<tr>
<td>2018</td>
<td>13%</td>
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<td>2019</td>
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<tr>
<td>2020</td>
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<tr>
<td>2021</td>
<td>15%</td>
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<tr>
<td>2022</td>
<td>17%</td>
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### Percentage of Women Leaders

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<tbody>
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<td>2018</td>
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<tr>
<td>2019</td>
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<td></td>
</tr>
<tr>
<td>2020</td>
<td>25%</td>
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<tr>
<td>2021</td>
<td>27%</td>
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<tr>
<td>2022</td>
<td>29%</td>
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### Percentage of People of Color in U.S. Successor Pools

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<th>Year</th>
<th>Percentage</th>
<th>Goal: &gt;35%</th>
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</thead>
<tbody>
<tr>
<td>2018</td>
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<td>2019</td>
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<tr>
<td>2020</td>
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<tr>
<td>2021</td>
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<tr>
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### Percentage of Women in Successor Pools

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<th>Year</th>
<th>Percentage</th>
<th>Goal: &gt;35%</th>
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<tbody>
<tr>
<td>2018</td>
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<td>2020</td>
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<tr>
<td>2021</td>
<td>30%</td>
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<tr>
<td>2022</td>
<td>35%</td>
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</table>
Employee Experience

We have set a number of talent strategy goals to ensure an optimal experience of our employees.

By 2030, we will make continuous improvements in recruiting, retention, training and development, mentorship and sponsorship professional growth, and employee engagement.

To achieve our goals, we have established a number of specific targets:

**Internal fill rate of 75%-85% for leadership roles.**

We aspire to have mid-level, director, and vice president-level roles filled by current Owens Corning employees, either through a promotion or as a lateral move, as a percentage of all internal fills and external hires for these roles. As we build our diverse talent pipeline, promoting from within strengthens our inclusive environment as employees see diversity among our leaders.

**Ensure two “ready now” internal succession candidates for key leadership roles.**

We calculate this by taking the number of unique candidates who are ready for promotion into the key leadership role divided by the number of succession roles in that business unit. Although strong candidates may be on multiple succession lists, each individual is counted only once. In addition, we have set succession targets to help increase representation from women and people of color.

**100% retention of high-potential talent between annual talent reviews.**

We want to ensure that our top talent remains proud members of the Owens Corning team. According to the Society for Human Resource Managers (SHRM), this is the top quartile for outstanding companies.
Safeguarding Human Rights

By 2030, 100% of our suppliers will meet our Supplier Code of Conduct requirements, with special attention on human rights issues such as safety and forced labor.*

Progress toward this goal is calculated each year through a sampling of suppliers, using our supplier sustainability survey. In 2022, 186 suppliers from around the world participated in this survey. They are asked to report their own policies regarding a range of topics, including human rights.

Of the suppliers who have responded to our survey assessments over the past three years, 96% reported that they meet the standards set by our Supplier Code of Conduct.

Photo submitted by:
Michele Mazza | Trophy Club, Texas, U.S.
Holgate Glacier in Kenai Fjords National Park near Seward, Alaska, U.S.
Owens Corning's sustainability journey began with a singular ambition: to be a net-positive company — one in which the positive impacts of our people and our products outweigh the negative impacts of our operations.

Over time, we have come to look at sustainability through a wider lens — to innovate not only our products and processes, but the ways we can improve the quality of life for people everywhere.

Now we begin a new phase in our journey, as we seek to operationalize sustainability throughout the enterprise.

Operationalizing sustainability means creating an environment where every Owens Corning employee is aware of the role they can play in achieving our sustainability goals.

We will build on the foundational efforts that have been central to sustainability within our organization — and take the action needed to reach the next level. We will identify and prioritize the gaps that exist in our operations, and then make the investments that will enable us to reach our targets. In addition, operationalizing sustainability requires us to continue to create transformational dashboards to supplement our communications and, where appropriate, to establish real-time tracking of our environmental footprint, as well as educate our stakeholders and communicate our results on the path to our 2030 goals.

As leaders in corporate citizenship, Owens Corning is well positioned to operationalize sustainability. Our dedicated sustainability team has been essential as we have established ambitious goals, and now the operationalization of sustainability means that our entire employee base — approximately 19,000 people worldwide — can act as sustainability champions throughout our organization.

In this section, we focus on the ways we are working to reduce our environmental footprint. We share our 2030 goals across a range of material topics, show the progress we've made toward achieving those goals, and present some of the ways our people are prioritizing sustainability in their operations around the world.
ENERGY EFFICIENCY & SOURCING RENEWABLE ENERGY

In this chapter:

- 2030 GOALS FOR ENERGY EFFICIENCY & SOURCING RENEWABLE ENERGY
- ONE ENERGY ROAD MAP
- SOURCING RENEWABLE ELECTRICITY
- OPERATIONALIZING ENERGY EFFICIENCY
- OUR ENERGY GOALS & DECARBONIZATION

Decreasing our reliance on fossil fuels is an essential part of our corporate sustainability strategy, and we are focused on eventually eliminating our dependence altogether. Doing so requires us to act on two fronts: We must use less energy overall, and we must ensure that the energy we do use comes from renewable sources.

Throughout our operations, our people are working diligently to reduce our energy use. Facilities are making large-scale advancements that are delivering major reductions, and our teams are finding innovative ways to make smaller improvements that add up to highly beneficial savings. At the same time, we are finding new sources of renewable electricity that can help us achieve our ambition to decarbonize.

Through our concerted efforts, we are putting our mission to work for renewable energy — and a better future.

Yuhang, China
Photovoltaic power generation.

The energy data in this chapter was independently assured to a high level by SCS Global Services. For more information on the assurance process see About the Report, and for our verification statement please see Appendix F.

For the data in this section, baseline adjustments were made following the World Resources Institute (WRI) protocols. Read more on page 262 in About the Report.
By 2030, we intend to achieve the following:

**Reduce our energy use by 20% over our baseline year of 2018. This includes both renewable and nonrenewable electricity, as well as other forms of nonrenewable energy.**

**Source 100% renewable electricity and work to reduce emissions from our processes.**

Owens Corning has robust systems in place to track and monitor our performance against key energy-related indicators. Each month, our plants report on the indicators that measure performance against our goals, which helps us stay current on data and spot variations that may require corrective action.

Across our network of plants, designated energy leaders oversee the implementation of energy management activities and help identify areas for improvement. In addition, Owens Corning has energy managers who conduct assessments, facilitate Kaizen (continuous improvement) and Total Productive Maintenance activities, develop projects, and provide technical support. Our energy team members also participate in monthly calls, which offer opportunities for collaboration that help us coordinate our global efforts more effectively.

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*S Nonrenewable energy includes, but is not limited to, natural gas, fuel oil, gasoline, diesel, propane, and liquefied petroleum gas.
Owens Corning’s plan to increase energy efficiency and source renewable electricity includes the following strategies:

**SHORT-TERM STRATEGIES**
- Increase renewable electricity consumption from power purchase agreements (PPAs) and virtual power purchase agreements (VPPAs), including a solar VPPA in Spain, expected to come online in stages throughout 2023 and 2024.
- Continue reducing the energy intensity of our operations through energy efficiency projects.

**MEDIUM-TERM STRATEGIES**
- Consider additional renewable energy opportunities on a global basis, including longer-term agreements, and consider PPAs in other regions where we operate, such as Latin America and Asia Pacific.
- Drive continued electrification of processes where feasible to reduce fossil fuel usage.
- Through projects and sourcing, switch to 100% renewable electricity and improve energy efficiency by 20% by 2030.

**LONG-TERM STRATEGIES**
- Drive innovation within our research and development portfolio to enable further conversion from fossil fuels to carbon-neutral and renewable energy to power our processes.
- Explore new renewable fuel technologies and opportunities, working towards an aspiration of using 100% renewable energy.

**SOURCING RENEWABLE ELECTRICITY**

**Power Purchase Agreements and Virtual Power Purchase Agreements**

While it is possible for a company to reduce its footprint simply by purchasing energy attribute certificates (EACs), Owens Corning believes that we should also be directly responsible for bringing more renewable electricity into the grid through PPAs or VPPAs, which support the development of large renewable energy projects. To expand our renewable energy platform, we have entered into four VPPAs that have added 341 MW of annual capacity. These include 125 MW of wind energy in Texas and 125 MW of wind energy in Oklahoma (both signed in 2015), as well as 43 MW of wind energy in Finland and 48 MW of wind energy in Sweden. The VPPA in Sweden reached its commercial date of operation in 2021, and Finland reached commercial date of operation in 2022.

Owens Corning aspires to have contracts in place covering 100% of our global enterprise electricity by 2025, and we intend to have those contracts operational by 2030. We have also entered into a VPPA in Spain that is expected to come on line in stages throughout 2023 and 2024. The agreement involves three separate VPPAs with a contracted capacity of 81.9 MW, which are collectively expected to produce 223 GWh per year.

This agreement, along with the wind-driven VPPAs in Finland and Sweden, means that 100% of Owens Corning’s European production sites and science & technology centers will be covered by contracts and VPPAs supplying guarantees of origin enabling renewable electricity.

For every MWh of electricity generated by the renewable installations, we receive one EAC, which we then apply to the manufacturing of our products. We retire all the EACs generated from our PPAs and VPPAs, which reduces our environmental footprint and the embodied carbon of our products. Guarantees of origin (GOs) are the type of EAC we receive from our Finland and Sweden wind VPPAs.

As of the end of 2022, these GOs cover 100% of the electricity demand at our site in Trzemeszno, Poland. This is a significant development for Owens Corning, as the Trzemeszno plant was the single largest user of electricity within the company and is associated with an electric grid with high levels of emissions. Due to these factors, the switch to renewable electricity for this site is especially impactful.
We additionally source renewable electricity at 13 more European locations through unbundled GOs purchased from site energy suppliers, which are certificates that provide assurance that the electricity comes from renewable sources. Sites with purchased active GOs are: Apeldoorn (Netherlands); Brüggen (Germany); Hällekis, Hässleholm, and Skövde (Sweden); Klášterec (Czech Republic); Liversedge (United Kingdom); Parainen and our Parainen Science & Technology Center (Finland); San Vicente (Spain); Vilnius (Lithuania); and Tessenderlo and Zele (Belgium). In 2022, these 13 sites sourced 260,141 MWh of renewable electricity, which in turn, saved 67,787 metric tons of related CO2e. By 2030, we fully intend to source all our renewables through PPAs, VPPAs, and onsite renewables so that purchasing GOs will not be necessary.

## OPERATIONALIZING ENERGY EFFICIENCY

Since 2006, Owens Corning has implemented over 1,270 energy efficiency projects in our facilities around the world. The result has been a reduction in estimated usage by approximately 1.47 million MWh per year.

Around the world, Owens Corning employees are taking steps to improve energy efficiency while we evaluate renewable energy opportunities and invest in on-site renewable programs. We also collaborate with external partners, and through our sourcing organization, we look at renewable energy procurement options available through our utility providers. Examples of our progress are outlined here.

These projects include lighting retrofits, pump optimizations, heat recovery, insulation improvements, and process optimizations. In 2022, we implemented 12 projects, generating annual energy savings of over 17,000 MWh and reducing greenhouse gas emissions by over 4,400 MT per year.

**2022 Energy Conservation Projects**

<table>
<thead>
<tr>
<th>DESCRIPTION OF ACTIVITY</th>
<th>NUMBER OF PROJECTS</th>
<th>MT CO2e SAVINGS/YEAR</th>
<th>MWh SAVINGS/YEAR</th>
<th>ANNUAL SAVINGS (USD)</th>
<th>INVESTMENT REQUIRED (USD)</th>
<th>PAYBACK</th>
<th>LIFETIME</th>
</tr>
</thead>
<tbody>
<tr>
<td>Waste heat recovery projects</td>
<td>1</td>
<td>45</td>
<td>246</td>
<td>$7,000</td>
<td>$9,479</td>
<td>1-3 years</td>
<td>16-20 years</td>
</tr>
<tr>
<td>Efficient lighting projects</td>
<td>2</td>
<td>1,802</td>
<td>3,516</td>
<td>$158,072</td>
<td>$435,000</td>
<td>1-3 years</td>
<td>6-10 years</td>
</tr>
<tr>
<td>Energy efficiency projects of various types including pump upgrades, motor upgrades, and other infrastructure</td>
<td>3</td>
<td>353</td>
<td>1,533</td>
<td>$322,639</td>
<td>$539,965</td>
<td>1-3 years</td>
<td>Varies by Project</td>
</tr>
<tr>
<td>Projects impacting our processes, resulting in improved energy efficiency, including right-sizing of systems, efficient coating systems, and other process optimizations</td>
<td>6</td>
<td>2,209</td>
<td>12,197</td>
<td>$521,282</td>
<td>$972,838</td>
<td>1-3 years</td>
<td>Varies by Project</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td><strong>12</strong></td>
<td><strong>4,409</strong></td>
<td><strong>17,492</strong></td>
<td><strong>$1,008,993</strong></td>
<td><strong>$1,957,282</strong></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
## Energy Consumption

*In MWh*

<table>
<thead>
<tr>
<th>Year</th>
<th>Direct Energy</th>
<th>Indirect Energy</th>
<th>Total Consumption</th>
</tr>
</thead>
<tbody>
<tr>
<td>2018</td>
<td>6,886,252</td>
<td>3,417,340</td>
<td>10,303,592</td>
</tr>
<tr>
<td>2019</td>
<td>6,699,594</td>
<td>3,141,596</td>
<td>9,841,190</td>
</tr>
<tr>
<td>2020</td>
<td>6,214,079</td>
<td>3,044,821</td>
<td>9,258,900</td>
</tr>
<tr>
<td>2021</td>
<td>6,816,950</td>
<td>3,354,319</td>
<td>10,171,269</td>
</tr>
<tr>
<td>2022</td>
<td>6,830,144</td>
<td>3,368,208</td>
<td>10,198,352</td>
</tr>
</tbody>
</table>

Energy usage is correlated to production.

## Normalized Electric Power

<table>
<thead>
<tr>
<th>Year</th>
<th>Electricity (MWh)</th>
<th>Normalized Value (MWh per MM Revenue)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2018</td>
<td>3,411,069</td>
<td>476</td>
</tr>
<tr>
<td>2019</td>
<td>3,135,655</td>
<td>433</td>
</tr>
<tr>
<td>2020</td>
<td>3,038,271</td>
<td>425</td>
</tr>
<tr>
<td>2021</td>
<td>3,347,133</td>
<td>388</td>
</tr>
<tr>
<td>2022</td>
<td>3,363,404</td>
<td>342</td>
</tr>
</tbody>
</table>

## 2022 Renewable Electricity by Type

As we make progress towards our 2030 goal for 100% renewable electricity, we track inputs from a number of types of sources, all of which contribute to our total 2022 renewable electricity consumption of 1,899,558 MWh, equal to 56% of our total electricity consumption.

- **Behind-the-Meter**: Renewable installations that are directly consumed by Owens Corning without coming from the grid
- **Site-Specific EAC**: Guarantees of origin that cover all electricity demand for a site
- **EACs from Large-Scale PPAs**: EACs associated with Owens Corning's power purchase agreements (PPAs) which inject renewable power directly into the grid
- **Residual Grid Mix**: Renewable electricity blends found in the electricity grids where we operate

### Energy Attribute Credit (EAC)

Overarching term including renewable energy credits (RECs), international RECs (IRECs), and guarantees of origin (GOs)
Improving Combustion Efficiency in Mexico City

Following a continuous improvement exercise in February 2022, our insulation plant in Mexico City, Mexico, improved combustion efficiency in the plant’s furnace, enabling them to reduce the volume of natural gas used in the melting process. The improvements are expected to reduce natural gas consumption by up to 4,500 cubic meters each month. In addition, upgrades to the plant’s curing ovens have reduced heat loss and improved efficiency, and repairs to the natural gas pipelines have helped reduce the risk of leaks.

Sourcing Renewable Electricity: On-Site and Off-Site Programs

Globally, approximately 56% of our electricity across our portfolio came from renewable sources, including wind, hydro, solar, and geothermal energy, in 2022. This metric is defined as the renewable energy sourced from the grid and the energy enabled by our PPAs and VPPAs, including on-site generation.

In 2022, approximately 51% of the electricity used in our U.S. facilities came from renewable sources: wind (47%), hydro (2.4%), solar (1.3%), and biomass (0.6%) This overall percentage includes renewable energy sourced from the grid as well as energy enabled by our PPAs and VPPAs. In fact, of our total U.S. electricity consumption, 44% is directly attributable to our renewable energy programs.

As we increasingly shift to renewable sources, we evaluate global opportunities and invest in on-site renewable programs. We also collaborate with external partners, and through our sourcing organization, we look at renewable energy procurement options available through our utility providers.

In addition to the PPAs and VPPAs discussed previously, the following are 2022 highlights of our on-site and off-site renewable programs:

- **Compton, California, U.S.** A 0.75-MW fuel cell was installed at the site, which is nearly double the size of the previous fuel cell at that site and delivers significantly greater efficiency.
- **Delmar, New York, U.S.** A 2.7-MW solar array provides approximately 7% of the power to the site.
- **Fairburn, Georgia, U.S.** A 1-MW solar installation saves an estimated 1,093 metric tons of CO₂e emissions.
- **Kearny, New Jersey, U.S.** A 0.5-MW solar array provides approximately 2% of the power to the site.
- **Toledo, Ohio, U.S.** A 2.4-MW solar array provides approximately 18% of the power for our world headquarters.
- **Tessenderlo, Belgium.** A 3.3-MW wind installation provides approximately 12% of the power to the site.
- **L’Ardoise, France.** This site sources 100% renewable electricity through the Compagnie Nationale du Rhône’s (CNR) Caderousse hydroelectric project, which harnesses energy from the Rhône River.
- **Sayli, India.** A 0.4-MW solar array provides approximately 2% of the power to this site.
- **Yuhang, China.** A solar array became operational in August 2022. With a capacity of 2 MW and an annual generation of 2,000 MWh, the array provides approximately 3% of the site’s electricity consumption.
Challenging Ourselves to Achieve Greater Sustainability

The Better Plants Challenge

The Better Plants Program, which is part of the U.S. Department of Energy’s (DOE’s) Better Buildings Initiative, is composed of more than 330 companies that have adopted ambitious goals to conserve energy, reduce water usage, and cut waste. As the DOE seeks to significantly advance energy efficiency in commercial and industrial buildings across the U.S., it has created the Better Buildings Challenge, as well as its industrial counterpart in which we participate, the Better Plants Challenge.

Participants in the Better Plants Challenge join other industry and community leaders to create and share real solutions that reduce energy consumption, create jobs, and save money. The Challenge requires an additional commitment from partners to share their corporate data, solutions, and successes in the form of showcase projects and implementation models to help guide other industrial companies with implementing real-world energy solutions in their facilities. In return, partners gain enhanced recognition from the DOE.

In 2022, our plant in Amarillo, Texas, U.S., was selected to host an in-plant training. These workshops are led by Challenge experts, who train participants on how to identify, implement, and replicate energy-saving projects. The three-day training took place in February 2023 and helped participants gain the technical expertise needed to overcome common critical barriers to adopting energy management practices and technologies.

As part of our participation in the Challenge, we have outlined specific energy-related objectives. Our Challenge Partner targets are as follows:

■ 28% energy efficiency improvement by 2030
■ 15% water withdrawal intensity improvement by 2030 — see page 87 for details

To ensure uniformity in reporting, we are using 2018 as our baseline for these targets.

According to the DOE, partners in this initiative have together saved more than $10.6 billion in cumulative energy costs and 2.2 quadrillion British thermal units (BTUs) since the program began.

Energy Team Challenges

Through our Energy Team Challenge, we offer performance awards to employees who demonstrate their dedication to our energy goals. Our sustainability goals are a factor in incentive compensation for our management team and we incentivize our Composites energy teams with cash rewards and recognition.

The 2022 Composites Energy Team Challenge winners were:

■ Gold Award: Taloja, India
■ Silver Award: Yuhang, China
■ Bronze Award: L’Ardoise, France

The 2022 winners in Insulation were:

■ Gold Award: Tianjin Glass Line, China
■ Silver Award: Mexico City, Mexico
■ Bronze Award: Guangzhou, China

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Taloja energy team | Taloja, India
Gold Award winners. Left to Right: Milind Shinde, Junaid Shaikh, Prasad Bodas, Abhijeet Desai, Sameer Goregaonkar

Tianjin energy team | Tianjin, China
Gold Award winners. Left to Right: Xingchen Liu, Shujie Zheng, Hailong Yu, Zeshan Qi, Baogang Zhang
As part of the Gold Award-winning team in Taloja, India, Prasad Bodas has brought his passion for energy conservation to Owens Corning, and he has been instrumental in helping the facility achieve its aspirations for energy reduction. After spending four years at our facility in Liversedge, U.K., Prasad returned to Taloja to serve as an energy leader at the plant. In addition to ensuring that his facility is using energy efficiently, Prasad also encourages people to take steps to reduce energy at home as well — by setting refrigerators to 5°C and air conditioners to 24°C, people everywhere can make a real difference. Prasad has a great deal to share about the Taloja team’s progress, as well as the innovative ways that Owens Corning is driving energy efficiency.

“\To be sustainable, we need to reduce energy consumption to improve our productivity and save our lovely planet.\”

On what sets Owens Corning apart in energy conservation

We have formed a team of nearly 50 people from different departments. We conduct meetings every month and give updates on our progress. People float their ideas for energy conservation, and we take action initially on low-hanging fruits. For bigger projects, we can apply for capital expenditure (CapEx) funding. That is something that is unique about Owens Corning’s approach to energy. We offer team members freedom of expression, and we allow for the global sharing of ideas, which we can adapt as necessary.

On the ways that Taloja implements their energy strategies

Owens Corning believes in reducing energy consumption by operationalizing many innovative ideas. As energy covers nearly 25% to 30% of manufacturing cost, any reduction in energy consumption can help our plant reduce manufacturing costs and improve productivity. We sponsor a number of events throughout the year that help us stay systematically focused on energy conservation. The energy contest is one example, and we also host an Energy Week event that uses quizzes and idea-generation discussions to raise awareness of energy issues throughout the plant. On a day-to-day basis, we conduct a lot of Kaizens, in which we look for opportunities to achieve continuous improvement in our energy use.

On energy projects that are having a real impact

As a team, we have conducted many low-cost and no-cost projects. Another very important project involves recovering waste heat from three of our furnace stacks. Waste heat here is recovered in the form of hot air, which is taken to the drying ovens. This project has enabled us to drastically reduce the amount of energy required to operate the drying ovens, and it will lead to substantial savings as well. As we look ahead, we recognize that for every construction of a new melter — or a rebuild of an old one — we must have a waste heat recovery project consideration, so that we can begin realizing energy savings from the word “go.”
LIGHTING UPGRADE IN AMARILLO

An upgrade in lighting might seem to be a relatively minor change, but at our facility in Amarillo, Texas, U.S., it has proven to be beneficial in many ways. The switch to LED lighting in early 2022 has helped the plant lower emissions, reduce energy costs, and provide a safer work environment for employees. Together, these enhancements are just another example of how we are operationalizing sustainability at our sites around the world.

As our teams assessed the Amarillo plant for potential improvements, it was determined that replacing the existing high-pressure sodium and metal halide lighting at the facility presented an opportunity to reduce energy costs and lower emissions. After auditing nearly 3,300 fixtures throughout the facility, our team in Amarillo determined that nearly 79% could be upgraded.

By replacing the original, less-efficient lights with ENERGY STAR® LEDs, we expect to reduce annual emissions considerably, saving nearly 3,500 MWh of energy per year and reducing CO₂eq emissions by nearly 1,800 metric tons per year.

In addition, while energy costs at the plant had been historically quite low, they have nearly doubled in 2022 due to inflation. As a result, the annual cost savings are now expected to be significantly greater, and the project will essentially pay for itself in less than three years.

This upgrade also provides employees with a lighter, brighter workplace. While light levels throughout the facility had been at 5-10 foot candles (FC), post-project light levels are now at least doubled to 20 FC, dramatically increasing the brightness in the facility. Ultimately, we believe that this will contribute to a reduction in the potential for slips, trips, and falls.

Throughout Owens Corning’s operations, we are seeing facilities undertake similar initiatives, and each one is delivering results that are helping steer us toward our 2030 sustainability goals.

OUR ENERGY GOALS & DECARBONIZATION

Working to reduce our energy use and source 100% renewable electricity is part of our larger strategy for decarbonization. Our energy goals and aspirations are essential as we strive to reduce our Scope 1 and Scope 2 GHG emissions and limit the use of fossil fuels, and as we combine these efforts with other strategies, we can eventually eliminate our use of fossil fuels altogether.

One strategy we are actively pursuing is known as fuel switching — electrifying technologies that had once been powered by coal, oil, or natural gas. An example of this is our work to transition from coal cupolas to electric melters. In addition, we are integrating low- and no-carbon technologies into our operations, which will further reduce the embodied carbon in our products.

These efforts are central to our overall strategic priorities for sustainability. Decarbonization is perhaps the most pressing environmental imperative we face today, and the need to act decisively has never been more urgent. Each step we take toward our 2030 energy goals moves us one step closer to decarbonization, and that inspires us to continue making progress across all our operations.
**COMBATING CLIMATE CHANGE**

In this chapter:

- 2030 GOALS FOR COMBATING CLIMATE CHANGE
- 2022 PROGRESS IN COMBATING CLIMATE CHANGE
- OUR ROAD MAP FOR REDUCING GHG EMISSIONS
- OUR PATH TO A MORE RESILIENT FUTURE

The scientific consensus is clear: The burning of fossil fuels — and the resulting emission of greenhouse gases (GHGs) — is the primary driver of climate change. As we see the negative impacts of climate change around the world, it is increasingly clear that everyone must do their part to transition away from fossil fuels. Governments and businesses around the world have expressed support for this consensus, and they are taking the action required to prevent continued devastation.

Owens Corning recognizes the role that manufacturing companies must play in combating climate change, and we are acting to reduce GHG emissions throughout the life cycles of our products. The goals we have set to reduce and these emissions throughout our operations are driven by the best available science. They are not based on what is easy to achieve, but on the real needs of our planet.

The energy data in this chapter was independently assured to a high level by SCS Global Services. For more information on the assurance process see About the Report, and for our verification statement please see Appendix F.

For the data in this section, baseline adjustments were made following the World Resources Institute (WRI) protocols. Read more on page 262 in About the Report.

Photo submitted by:
Scott Campen | Tennessee, U.S.
Nagunt Mesa, Zion National Park, Utah, U.S.
By 2030, our goal is a 50% reduction in absolute Scope 1 and Scope 2 market-based GHG emissions from the base year of 2018.

- **Scope 1** includes the direct emissions from our own manufacturing operations.
- **Scope 2** includes indirect emissions from the generation of purchased energy.

We also have a goal for 2030 to reduce absolute Scope 3 emissions by 30%, compared to the base year of 2018.

- **Scope 3** refers to other indirect emissions, primarily those from our supply chain.

Despite reductions in Scope 3 emissions from fuel- and energy-related activities, total annual Scope 3 emissions rose in 2022 due to increases in emissions from the categories of purchased goods and services, upstream transportation and distribution, and downstream transportation and distribution, which are categories strongly correlated to factors stemming from production increases and overall growth, such as third-party foam production.

These goals need to be ambitious because the need to reduce GHG emissions has never been greater. The Intergovernmental Panel on Climate Change (IPCC) has established that temperature increases must be held to below 1.5°C above preindustrial levels in order to avoid the worst impacts of climate change. Our 2030 Scope 1 and Scope 2 goals have been approved by the Science Based Targets initiative (SBTi) as meeting these standards. Concurrently, the SBTi has approved our Scope 3 GHG reduction goal as being aligned with the IPCC’s pathway to achieve well below 2.0°C temperature increases.

We follow the World Resources Institute (WRI) and World Business Council for Sustainable Development (WBCSD) protocol to account for Scope 1, Scope 2, and Scope 3 emissions. Hydrochlorofluorocarbon (HCFC) and hydrofluoroolefin (HFO) emissions are optionally included in our Scope 1 calculations in addition to the gases covered by the Kyoto Protocol (carbon dioxide, methane, and others). These are outlined in Appendix C.
2022 PROGRESS IN COMBATING CLIMATE CHANGE

From the base year of 2018 to 2022, Owens Corning's greenhouse gas emissions progress toward our 2030 goals is as follows:

### 20% Absolute Reduction in Scope 1 Emissions

Most of our Scope 1 emissions are attributable to the blowing agent used in our XPS foam production process, as well as fossil fuel combustion across the company. Innovations such as our FOAMULAR® NGX™ insulation are critical to our strategy. It should also be noted that changes in production output could cause increases or decreases in our emissions, given the shifts in the use of raw materials and energy. For example, in 2022 Owens Corning outsourced production of a foam product in Asia Pacific, resulting in a short-term decrease in Scope 1 emissions. Since we intend to restart production of the foam product in 2023, we anticipate these emissions returning to our Scope 1 values. If we included the above mentioned outsourced foam production in Asia Pacific in our Scope 1 emissions, instead of Scope 3, we would have recorded a 17% reduction instead of the 20% noted.

### 26% Absolute Reduction in Market-Based Scope 2 Emissions

Electricity from utility providers is the major source of our market-based Scope 2 emissions. We use monthly invoices to capture end-to-end consumption at an enterprise level. As required through the WRI and WBCSD GHG Corporate Accounting and Reporting Standard and GHG Protocol Scope 2 Guidance, we calculate our market-based GHG emissions by tracking:

- Energy attribute certificates (including renewable energy credits)
- Contracts
- Supplier/utility emission factors
- Residual mix (where appropriate)

In 2022, we used the 2020 eGrid factors to measure location-based emissions from electricity for U.S. locations, as well as the 2022 Green-e® Residual Mix factors to measure market-based emissions from U.S. locations. For Europe, we also used the 2020 AIB European Residual Mix factors for market-based electricity emissions. For select international market-based calculations and all international location-based electricity calculations, we used International Energy Agency (IEA) factors released in 2020. It should be noted that for approximately 51.3% of our facilities, we calculate emissions using supplier/utility emissions factors, which means we can make these calculations more accurately than through standard regional estimates. In these cases, suppliers provide information about the specific power sources used. These calculations may reflect the sources that make up the grid supply after renewable energy has been sold to specific users, meaning that other users are charged for the residual mix of sources.

### 22% Absolute Reduction in Scope 1 and Market-Based Scope 2 Emissions

Progress toward our GHG emissions goals is made possible through several key programs, including the following:

- Implementation of energy-efficiency initiatives across our enterprise
- Evaluation of combined heat and power
- Heat recovery
- Expansion of renewable sources to replace grid energy
- Blowing agent conversion
Defining and Calculating Scope 3 Emissions

Scope 3 emissions include those related to the following:

**Purchased Goods and Services**

The representative raw materials inputs used to manufacture products across our portfolio, from cradle to supplier gate.

- **Chemicals and minerals**: We have revamped our calculations to incorporate supplier emissions data and better represent our true impact. Invoiced quantities from our financial spend data of supplied commodities are multiplied by a material-specific emissions intensity factor using material mappings developed from procurement data taxonomy. Over the sustainability reporting goal period, we will track progress by continuing to engage suppliers, so we can replace the material-specific emissions intensity factor with information supplied by the supplier. Our practices require us to track progress from our base year forward for supplier impact.

- **Facing materials and packaging**: Based on manufacturer-specific life cycle assessments (LCAs), we calculate the GHG emissions of these raw materials by combining annual production data with corresponding life cycle modules.

- **Bespoke calculation using product-based methodology**: Given the impact and size of the outsourced production for one product line in Asia Pacific, Owens Corning calculated emissions using an existing process with representative, industry-average emission factors for the unique blend of input materials. This enables us to account for additional, material sources of Scope 3 emissions from purchased goods and services not otherwise included. In previous years, this impact would have been visible in our Scope 1 emissions, and we expect to transition this production back within our operations in the coming years.

**Capital Goods**

Our assets, including manufacturing equipment, construction equipment, and land.

- We determine the representative industry sector associated with each asset class’s economic activity. GHG emissions are calculated using the annual expenses incurred within the asset class and the GHG emissions generated per unit of economic activity within its industry sector. Determination of Scope 3 emissions associated with capital goods was performed using an economic input-output life cycle assessment-based (EIO-LCA) method and calculated using the EIO-LCA online tool developed by Carnegie Mellon University. Primary data were collected internally on total spend for capital expenditure.
Fuel- and energy-related activities
This includes both upstream and downstream emissions.

- Upstream emissions stem from the activities required to generate electricity, such as the extraction, processing, and transportation of fuels.

- Downstream emissions are the result of generation-to-consumption activities, including those produced from additional electricity generation needed to compensate for line losses that occur during transmission and distribution.

- To calculate GHG emissions for fuel- and energy-related activities, we use life cycle impact assessment factors, which are calculated using geographic-specific unit processes for high-voltage production from the ecoinvent v3.8 database. These are combined with emission rate data from the U.S. Environmental Protection Agency’s eGRID (for U.S. facilities) and IEA (for non-U.S. facilities). For U.S. facilities, data for downstream transmission and distribution line losses were calculated using eGRID. For non-U.S. facilities, we used IEA data sets for the calculation.

Upstream transportation and distribution
The transportation involved in sourcing raw materials.

- We determine the weight of supplied raw materials and the corresponding distances transported by each major transportation mode using data from our transportation management systems. After combining this activity data with the respective GHG emissions factor for each mode, we can estimate the GHG emissions generated from the inbound transportation of supplied input materials.

Business travel
Rental car mileage and commercial air travel, as well as employee vehicle reimbursement related to business mileage.

- This data is received from our travel vendor. For employee vehicle reimbursement related to business mileage, Owens Corning uses an extract of miles from our travel system and determines emissions based on a standard emissions rate, which is provided by the U.S. EPA Greenhouse Gas Emissions from a Typical Passenger Vehicle Guide.

Employee commuting
Emissions related to our employees traveling to and from work.

- Emissions are calculated using a simplified version of the Scope 3 GHG Protocol's average-data method. To estimate employee commuting, we use the U.S. EPA's guide to determine an estimate of grams of carbon dioxide per mile, as well as the average number of days worked per year. We believe this estimate is overstated, as our calculations do not take into account telecommuting, public transportation, carpooling, business travel days that would be accounted for separately, or other methods of commuting.

Downstream transportation and distribution
The outbound distribution of finished goods.

- Primary data for these product shipments are collected internally from Owens Corning logistics management systems. From the data sets collected, we combine activity data — consisting of the weight of products shipped, distance transported, and transportation mode — with mode-specific emissions factors to calculate GHG emissions.

End-of-life treatment of sold products
Emissions from the disposal and end-of-life treatment of the products we sell.

- Scope 3 EoL emissions are determined for fiberglass and XPS insulation by calculating the GHG emissions when all the glass wool and XPS foam produced by our North American facilities for 2022 is sent to the landfill. Pertaining to our fiberglass and XPS insulation, EoL emission factors are determined from cradle-to-grave EPDs, and the LCAs upon which they are based. The third party-verified LCAs were internally conducted for these products in 2017 and 2018, respectively. These factors are used in conjunction with 2022 production volumes for these two insulation materials to determine the Scope 3 emissions when the production volume quantities are disposed of as waste to landfill.

Processing of sold products
The downstream processing that is common with our intermediate products, such as reinforcement glass fiber, which is often used in reinforced plastic composites.

- GHG emissions from this category are determined by correlating the revenue from our Composites business to the GHG emissions of industry sectors that represent our glass-fiber reinforced plastic (GFRP) customers. We calculate Scope 3 emissions for these products using the EIO-LCA online tool.
## SCOPE 1 & 2 GHG EMISSIONS

### Short-Term Strategies
- Continue converting the blowing agent used in manufacturing our XPS foam products to blowing agents with lower global warming potential (GWP).
- Enter into additional power purchase agreements (PPAs) and virtual power purchase agreements (VPPAs) to reduce Scope 2 emissions.
- Drive improvements through the pursuit of circular innovations within our research and development portfolio to reduce emissions from input materials.
- Follow energy intensity strategies we have established for energy reduction and energy recovery, discussed in detail on page 54.
- Adjust operating process conditions by increasing renewable energy ratio in our hot processes (e-boost) to reduce use of natural gas.

### Medium-Term Strategies
- Ensure systematic knowledge sharing across our network of facilities.
- Consider additional renewable energy opportunities on a global basis, including longer-term agreements.
- Continue converting the blowing agent used in manufacturing our XPS foam products to those with lower GWP. By working to develop products with reduced operational emissions and lower embodied carbon, we can make great progress toward achieving our GHG reduction goals.
- Continue maximizing opportunities for usage of renewable energy in our glass melting while switching to 100% renewable energy.
- Reduce fossil fuels by switching our natural gas processes over to electricity (for example, converting to electric melters and dryers in nonwovens production) or other innovative technologies like hydrogen or biogas, that could provide benefits across all three of our businesses.
- Improve energy efficiency through a 20% reduction in absolute energy consumption by 2030, enabled through Total Productive Maintenance and improvements to our production processes.
- Continue to innovate within our research and development portfolio to reduce emissions from input materials through circular innovations. There is increasing scientific evidence that the circular economy model — in which the raw materials and resources extracted for our products and processes are kept in the economy indefinitely — can be a significant tactic for reducing carbon dioxide emissions and combating climate change.

### Long-Term Strategies
- Drive innovation in manufacturing technologies to enable conversion from fossil fuel to carbon-neutral and renewable energy to power our manufacturing processes.
- Drive innovation through research and development on future XPS foam products to bring the GWP of blowing agent blends down even further. Work to develop and implement last-mile solutions for remaining operational emissions through exploration of new equipment, processes, and still-emerging renewable fuel technologies.

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**THE ROADMAP TO OUR 2030 GOALS**

Photo submitted by: Scott Campen | Tennessee, U.S.
THE ROADMAP TO OUR 2030 GOALS

SCOPE 3 GHG EMISSIONS

**Short-Term Strategies**

- Create a sustainability governance framework and infrastructure within our sourcing and supply chain organizations to promote collaboration and visibility of sustainable sourcing impact.
- Develop training and key supplier management systems to drive Scope 3 reductions, building on segmentation work that identified suppliers with high Scope 3 reduction potential.
- Collaborate between the sourcing and supply chain organizations to develop a tool to track progress toward value chain decarbonization.
- Realize Scope 3 improvements from new power purchase agreements (PPAs) and virtual power purchase agreements (VPPAs) that enable sourcing 100% renewable electricity, which reduces Scope 3 emissions from fuel- and energy-related activities by decreasing emissions generated from the extraction, transportation, and processing of fuel sources used to produce electricity.
- Pursue circular economy initiatives that could reduce upstream Scope 3 emissions by using more recycled inputs to production, such as end-of-life recycling of asphalt shingles back into our manufacturing processes.

**Medium-Term Strategies**

- Continue to realize Scope 3 emissions improvements from sourcing 100% renewable electricity.
- Leverage the Citi Sustainable Supply Chain Finance program to collaborate with suppliers and incentivize emissions reductions.
- Realize Scope 3 emissions reductions through lower-GWP blowing agents in foam products, which in addition to reducing operational emissions, also emit lower levels of GHG in their end-of-life.
- Continue to pursue circular initiatives to reduce upstream emissions from raw material inputs to manufacturing.
- Further optimize logistics operations to reduce the emissions of upstream and downstream transportation fleet.
- In addition to Scope 3 savings from renewable electricity in relation to non-renewable electricity, also realize scope 3 upstream emissions savings from the electrification of processes, such as glass furnaces, coke cupolas, and material handling equipment, to reduce upstream Scope 3 emissions from sourcing and processing of coke and natural gas.

**Long-Term Strategies**

- Continue to transparently engage with suppliers to reduce value chain emissions wherever feasible.

THE ROADMAP TO OUR 2030 GOALS

COMBATING CLIMATE CHANGE
Understanding the Cost of Emissions

Owens Corning has established an internal price for carbon emissions – a best practice used by many companies. Doing so helps us make smart decisions about our GHG emissions reduction initiatives, as it enables us to frame challenges and opportunities in monetary terms, which are often more broadly understood than the concept of tons of emissions.

In implementing an internal carbon price, we consider Scope 1 and 2 emissions – the total impact of our operations and our supply chain. We have internally and externally published reduction goals, which are aligned to drive strategy and action. We do not have an internal carbon tax or carbon charge allocated to our businesses.

Quantifying the cost of carbon emissions with an internal carbon price helps us plan future scenarios and make informed business decisions. Our internal carbon price varies by region and considers a range of potential forecasted costs, ranging from $60 to $150 per metric ton depending on the location. A regional approach to internal carbon pricing allows us to be more accurate as we estimate and evaluate the cost of carbon for capital project planning in regions with varying carbon prices. It also places value on reducing carbon emissions in regions that do not yet have taxes or trading schemes.

By estimating the difference in metric tons of CO₂e emissions produced from one year-end period to the next, then multiplying that amount by $150 per metric ton, we can arrive at the high-end estimate of cost savings of emissions reduction if a carbon tax were implemented.

We have also been able to quantify our current total risk in the event of an efficient, economywide carbon tax, and we can see how dramatically we have reduced that risk since 2007, our peak GHG emissions year. This also allows us to value our future forecasted emissions reductions as we work toward our 2030 goals.

Additional Strategies for GHG Emissions Reduction

We are committed to achieving our goals by making significant changes to our operations and driving change in the electricity grid. We do not purchase carbon offsets as a strategy to reduce our manufacturing footprint, as we prefer direct actions to accomplish our Scope 1 and Scope 2 emissions reduction goals.

We do, however, purchase offsets on occasion to achieve customer-inspired embodied carbon reductions beyond what is possible via our direct operations – for example, to attain carbon-neutral certification for our products. These offsets are not used to reduce our GHG emissions and are not included in our calculations for progress toward our 2030 goals.

Reduction of Scope 1 GHG Emissions

Most of our Scope 1 emissions are attributable to the blowing agent used in our XPS foam production process, as well as fossil fuel consumption across the company. Converting the blowing agent, electrifying our assets, and employing efficiency measures such as e-boosting are among the strategies for Scope 1 emission reduction.

Reduction of Scope 2 GHG Emissions

In support of our efforts to reduce our GHG emissions, we have expanded our renewable energy portfolio. The following are a few examples; more information about our work in this area can be found in the Energy Efficiency & Sourcing Renewable Energy chapter of this report.

<table>
<thead>
<tr>
<th>2022 Renewable Programs GHG Reductions by Type</th>
<th>MWh</th>
<th>EMISSIONS REDUCTION, IN MT CO₂e</th>
</tr>
</thead>
<tbody>
<tr>
<td>Behind-the-Meter Renewable Installations</td>
<td>93,964</td>
<td>(6,302)</td>
</tr>
<tr>
<td>Site-Specific Energy Attribute Certificates</td>
<td>260,141</td>
<td>(67,787)</td>
</tr>
<tr>
<td>Energy Attribute Certificates from Large-Scale PPAs</td>
<td>1,199,397</td>
<td>(531,148)</td>
</tr>
<tr>
<td>TOTAL</td>
<td>1,553,501</td>
<td>(605,236)</td>
</tr>
</tbody>
</table>

**DEFINITIONS**

- **Energy Attribute Credit (EAC)**: Overarching term including renewable energy credits (RECs), international RECs (IRECs), and guarantees of origin (GOs)
- **Behind-the-Meter**: Renewable installations that are directly consumed by Owens Corning without coming from the grid
- **Site-Specific EAC**: Guarantees of origin that cover all electricity demand for a site
- **EACs from Large-Scale PPAs**: EACs associated with Owens Corning’s power purchase agreements (PPAs) which inject renewable power directly into the grid

- In 2022, we sourced 260,141 MWh of electricity through guarantees of origin for renewable electricity across 13 of our European sites, which translates to 67,787 metric tons of avoided CO₂e.
- Our facility in Gastonia, North Carolina, U.S., is powered with 100% nuclear electricity, which generates no electric GHG emissions.
- Through our PPAs and VPPAs, Owens Corning retired 1,199,397 renewable energy credits for a total of 531,148 metric tons of avoided CO₂e in 2022.
We have reduced absolute Scope 1 and Scope 2 CO₂e emissions by approximately 60% since our peak emissions year of 2007.

By cutting our 2018 emissions in half over the next decade, our 2030 absolute Scope 1 and Scope 2 CO₂e emissions will be approximately 75% lower than the peak emissions year of 2007.

Reduction of Emissions Through Transportation

In alignment with our strategies to reduce our Scope 3 footprint, we focus in part on emissions related to transportation. We remain optimistic about the prospect of a shift toward electric fleets in transportation. Currently, the demand for electric vehicles outpaces the supply, but we expect to see the possibility for advancement in the coming years. By 2030, we anticipate that electric vehicles will be a much larger part of our transportation strategy.

In the meantime, Owens Corning continues to focus on improving efficiencies in planning, as well as addressing the root causes of any inefficiencies in our movement of goods. This includes identifying logistical and sourcing strategies that leverage sustainable solutions.

- To help limit the number of shipments made each day, we are working to reduce the number of stock transfer orders, in which finished goods are moved from one warehouse location to another. Stock transfer orders lead to double handling and increase the number of miles a product travels before arriving at a customer location. One way to achieve this is to optimize storage capacity at our warehouses.

- We are maximizing the amount of product delivered on each shipment and, wherever possible, collaborating with our partners to haul heavier loads on specific roads as allowed by special permit. We are also working to reduce the weight of certain products such as shingles without sacrificing product quality. In doing so, we can fit more pallets on a truck, thus further increasing our efficiency.

- We are focused on using the most energy-efficient modes of transportation, opting for rail transport over trucking whenever possible and avoiding the use of air transport for our goods.

- We use a range of analytics to leverage available data and identify further opportunities for improvement. For example, we can use analytics to determine which carriers, modes, and routes can deliver the efficiencies and results needed to reduce our Scope 3 emissions.

Partnering to Combat Climate Change

As part of our work to combat climate change and advance sustainability, we increasingly engage with external parties with whom we can leverage our expertise and our products. These partnerships include the following:

- **Trade groups**
  Partnerships with trade organizations allow us to expand our reach to consumers and industry professionals, which helps promote energy efficiency and renewable energy practices. For a list of trade groups with whom we engage, see Appendix D. We also participate at the board level in many strategically relevant organizations, such as the North American Insulation Manufacturers Association (NAIMA), the Passive House Network, and Building Performance Institute (BPI). These associations allow us to expand our reach to consumers and industry professionals and help promote climate-friendly topics like Energy Efficiency and Renewable Electricity. In addition, Owens Corning employees participate on committees and working groups within these organizations.

- **Policymakers**
  We are supportive of legislation and regulatory efforts aimed at reducing global GHG emissions in line with the IPCC’s recommendations to limit warming to 1.5°C, and we engage with policymakers to that end. Our government affairs team collaborates globally with our legal, regulatory affairs, corporate affairs, finance, sourcing, S&T, and sustainability functions to support activities aligned with our combating climate change priorities and objectives.

- **Nongovernmental organizations (NGOs)**
  Owens Corning actively partners with organizations that drive forward-thinking programs on a range of topics, including advanced standards for energy efficiency and the durability of buildings. This includes our membership in the American Center for Life Cycle Assessment, the National Association of State Energy Officers, and the Carbon Leadership Forum.

Green Power Partnership

Owens Corning is a member of Green Power Partnership, which was established by the U.S. Environmental Protection Agency to provide expert advice and technical assistance to companies and organizations seeking to increase their renewable electricity use. To qualify for participation, partners must meet annual electricity use standards and meet a minimum percentage of their annual electricity use in the U.S. with green power. As a member of the Green Power Partnership, Owens Corning receives access to a range of tools and resources, as well as valuable assistance as we seek to achieve our 2030 renewable electricity target. In 2022, Owens Corning was ranked No. 20 on the Green Power Partnership’s national ranking of the top 100 partnering companies.
Although he has only been with Owens Corning for about one year, Derek Bian has already taken a very active role in our fight against climate change. Derek has been involved in the installation of solar panels at two facilities in China, Yuhang and Changzhou, as well as spearheading waste glass recycling projects in Yuhang and Kimchon, South Korea. In addition, Derek helps ensure that all our Asia Pacific track their energy consumption and follow local environmental regulations.

On Owens Corning’s unique approach to climate change
Owens Corning has a long history in our industry, and we are leading the way not only in business, but also in the development of new technologies, innovations, and more. We are now applying our efforts to sustainability and climate change — and we are now leaders in this area as well. As we improve our processes to optimize the effectiveness of our energy consumption and use more renewable energy, we can also lead the way in sustainability and combating climate change. Owens Corning can identify and drive sustainability projects based on our processes. Once a project is completed and verified as effective, it can be deployed on all similar processes across our enterprise. It can become a fixed part of the process, which makes our approach even more sustainable and comprehensive.

On what makes the fight against climate change a personal passion
In addition to the attention that climate change has received in the media, I have noticed it more and more in my personal life. For example, when I was a child, it seemed that summers were not as they are now, and I could get cool simply by using an electric fan. Now, though, I feel like I need to keep the air conditioner on most of the time throughout the summer. When I became a father, I became even more concerned that in the future, my child will have to use the air conditioner even more throughout the year, which will only use more energy and bring about further climate change. This is how I became interested in climate change, and I believe it should matter to everyone.

On what individuals and companies can do to combat climate change
There are many things that people can do in their everyday life to reduce their environmental footprint and help fight climate change. My family and I sort our garbage for recycling, which helps manufacturers reduce their reliance on virgin raw materials. In addition, we try to be aware of our water usage and turn off our domestic appliances when they are not in use. At the same time, Owens Corning is setting a good example for how companies can do their part. Our processes require a high consumption of water and energy. Every improvement Owens Corning makes, even if they are small steps, can have a significant impact on our footprint.

"It is very important for Owens Corning to set up sustainability goals and continue driving our approach in the long term."

Derek Bian
EHS Leader, Asia Pacific

Photo courtesy of Derek Bian.
OUR PATH TO A MORE RESILIENT FUTURE

Owens Corning knows that reducing GHG emissions is essential for the well-being of the planet. Although the world is already experiencing the effects of climate change, such as higher temperatures and more extreme weather conditions, we can help avoid the worst impacts of climate change by reducing GHG emissions in our operations and the embodied carbon in our products. In many ways, our efforts to reduce our emissions footprint are tied to our pursuit of environmental justice — the idea that no population should be disproportionately affected by negative environmental impacts, and all populations should be able to take action based on informed decisions.

We are optimistic that the roadmaps we have established will help us achieve the ambitious goals we have set for ourselves, as will the spirit of collaboration that is embedded in Owens Corning’s key values. We call upon all stakeholders — within our operations, throughout our value chain, and among organizations and government entities — to join us in working to hold global temperature increases to less than 1.5° C above preindustrial levels. Together, we can make a difference if we all recognize the role that we have to play in this effort.

Photo submitted by:
Nilesh Sonawane | Mumbai, India
PROTECTING BIODIVERSITY

In this chapter:

- 2030 GOALS FOR PROTECTING BIODIVERSITY
- BIODIVERSITY MANAGEMENT PLAN
- COLLABORATING TO SAFEGUARD SPECIES
- OUR PATH TO CONSERVATION

Across the board, Owens Corning’s sustainability efforts have a common focus — improving quality of life. This focus extends to the countless species with which we share the world. As we work to reduce the impact of our environmental footprint, we must also be aware of how air quality, water scarcity, and habitat loss and degradation are affecting vulnerable, threatened, and endangered species in the areas near our facilities.

Protecting biodiversity is a key material topic in our sustainability efforts. This journey began in 2015 when we released our first Biodiversity Statement, in which we pledge to:

- Integrate biodiversity assessments into current and proposed activities.
- Work with governmental agencies at each of our operating locations to obtain appropriate clearances and information to operate and, if necessary, take appropriate measures to protect the environment, including sensitive ecosystems.
- Encourage and support facilities to participate in local initiatives that protect and restore biodiversity.
- Publicly report on biodiversity impacts and activities in a timely, consistent, and transparent manner.
- Understand and positively influence the impact of our supply chain on biodiversity.

With around one million plant and animal species currently threatened with extinction, we understand the increasing need for action and for specific steps to mitigate our impacts. While we are relatively early in our process, we are pleased with our efforts to date. We expect to see even more progress as we continue to collaborate within our operations and with our partners throughout our value chain.
**Biodiversity Management Plan**

Our management plan starts with a complete location screening for all our facilities. Sites located in close proximity to protected and high-value biodiversity habitat areas may pose a higher risk for impacts to biodiversity. We compare each of our site locations to the following lists of the most protected and highly valued areas:

- United Nations Educational, Scientific and Cultural Organization (UNESCO) World Heritage Sites and Biosphere Reserves
- Sites designated by the Ramsar Convention of Wetlands
- Sites designated by the Alliance for Zero Extinction, an organization dedicated to conserving the world’s most threatened species
- Key Biodiversity Areas (KBA), referencing the 2016 IUCN Global Standard report
- Natura 2000 sites, as applicable to Europe
- Nationally listed nature and wildlife reserves

We upload site coordinates into the Integrated Biodiversity Assessment Tool (IBAT) to help us obtain information about a facility’s proximity to nationally and regionally protected sites, key bird and biodiversity areas, and endangered or threatened species in the vicinity. IBAT is a web-based mapping and reporting assessment developed and maintained by the IBAT Alliance, comprising BirdLife International, Conservation International, International Union for Conservation of Nature (IUCN), and UN Environment World Conservation Monitoring Centre. It is designed to help users make informed, data-driven decisions in their biodiversity policies and practices.

IBAT provides access to the following global biodiversity datasets:

- IUCN Red List of Threatened Species
- IUCN Species Threat Abatement and Recovery (STAR) metric
- World Database on Protected Areas
- World Database of Key Biodiversity Areas

Sites that are determined to be within a KBA’s boundaries are prioritized to assess potential adverse impact, and plans are established to assess the remaining sites. In addition to greater awareness of our sites’ proximity to protected sites, IBAT enables us to act with greater transparency. As our understanding grows, we can develop management plans to mitigate our impact on species.
Integrated Biodiversity Assessment Tool Findings

The chart below contains information about Owens Corning sites that have been determined to be Key Biodiversity Areas, derived from the Biodiversity Management Plan. IBAT defines Key Biodiversity Areas (KBA) as "sites contributing significantly to the global persistence of biodiversity, in terrestrial, freshwater and marine ecosystems." Sites within a KBA’s boundaries receive priority for mitigating action. All sites listed below are Owens Corning manufacturing sites.

<table>
<thead>
<tr>
<th>LOCATION / ACREAGE</th>
<th>KEY BIODIVERSITY AREA (KBA)</th>
<th>TYPE OF KBA</th>
<th>BIODIVERSITY TRIGGERS</th>
<th>NUMBER OF SPECIES WITH POTENTIAL HABITATS WITHIN 1KM OF SITE*</th>
<th>DETAIL ON PROXIMITY</th>
<th>STATUS OF MANAGEMENT PLAN</th>
</tr>
</thead>
<tbody>
<tr>
<td>Asan, South Korea 8.68 acres</td>
<td>Asan Bay (including Asan-ho lake and Sapgyo-ho lake)</td>
<td>Important Bird and Biodiversity Area</td>
<td>Endangered and Vulnerable Species, migratory birds/ congregations</td>
<td>CR-5, EN-36, VU-50, NT-37, LC-706</td>
<td>Within 1 km</td>
<td>Level 2: Pilot Assessment Complete 2022</td>
</tr>
<tr>
<td>Brüggen, Germany Heidhausen 81: 6.08 acres Christenfeld 24: 3.1 acres</td>
<td>Schwalm-Nette-Platte and Grenzwald</td>
<td>Important Bird and Biodiversity Area</td>
<td>Bird species with most of their range restricted to a region, Regionally important congregations, Species threatened at the European Union level (IBA status B2, B3, and C6)</td>
<td>CR-5, EN-10, VU-45, NT-42, LC-794</td>
<td>Within 1 km</td>
<td>Level 2: Planning</td>
</tr>
<tr>
<td>Guangde, China 13.56 acres</td>
<td>Anhui Chinese Alligator National Nature Reserve</td>
<td>Alliance for Zero Extinction Area</td>
<td>Endangered Species, Endemic Species</td>
<td>CR-5, EN-8, VU-29, NT-21, LC-724</td>
<td>Within the AZE boundaries</td>
<td>Level 2: Pilot Assessment Complete 2022</td>
</tr>
<tr>
<td>Jiaobei, China 3.3 acres</td>
<td>Qingdao-Rizhao coastal wetland and islands</td>
<td>Important Bird and Biodiversity Area</td>
<td>Endangered and Vulnerable Species</td>
<td>CR-8, EN-32, VU-48, NT-25, LC-682</td>
<td>Within the IBA boundaries</td>
<td>Level 2: Planning</td>
</tr>
<tr>
<td>Qingdao, China 12.36 acres</td>
<td>Qingdao-Rizhao coastal wetland and islands</td>
<td>Important Bird and Biodiversity Area</td>
<td>Endangered and Vulnerable Species</td>
<td>CR-8, EN-32, VU-49, NT-25, LC-686</td>
<td>Within the IBA boundaries</td>
<td>Level 2: Planning</td>
</tr>
<tr>
<td>San Vicente, Spain 6.33 acres</td>
<td>Mountains of Barcelona</td>
<td>Important Bird and Biodiversity Area</td>
<td>Important area for species characteristic of the Mediterranean region, and cliffnesting species</td>
<td>CR-17, EN-38, VU-90, NT-97, LC-1,233</td>
<td>Within the IBA region</td>
<td>Level 2: Pilot Assessment Complete 2022</td>
</tr>
</tbody>
</table>

*Species are listed in the order of Critically endangered (CR), Endangered (EN), Vulnerable (VU), Near threatened (NT), Least concern (LC).
COLLABORATING TO SAFEGUARD SPECIES

Owens Corning relies on guidance from organizations around the world as we work to develop strategies that will protect biodiversity.

Wildlife Habitat Council

Owens Corning works with third-party nonprofit organizations to conduct Biodiversity Impact Assessments, designed to help us address adverse impacts as part of our Biodiversity Management Plan. The Wildlife Habitat Council (WHC), an organization dedicated to promoting and certifying habitat conservation and management on corporate lands, is one of our key partners. In conjunction with the WHC, we are developing bespoke methodologies to consistently assess our impacts at our locations around the world.

In 2022, initial assessments were conducted for sites in Asan, South Korea; Guangde, China; and San Vicente, Spain. These assessments included actionable recommendations as the sites work to improve conditions for local species. Examples include:

- Engage with employees around biodiversity awareness
- Install green infrastructure, such as lighting improvements, green rooftops, and stormwater runoff collection, all of which can support native species
- Potential restoration projects

Owens Corning also partners with WHC to develop a range of initiatives that empower sites to proactively protect species in ways that are aligned with best practices. WHC’s invaluable guidance has helped us initiate a range of projects and maintain native habitats at many Owens Corning sites, including the restoration of native habitats such as prairie lands and the installation of bird boxes, bat boxes, and pollinator gardens.

Since 2015, we have held a series of activities and programs designed to engage employees and raise awareness of the nature projects and features at our locations. Following the recertification process in 2020, which included assessments of our grounds and biodiversity programs, our world headquarters in Toledo, Ohio, U.S., was awarded WHC Gold Certification. Our Science & Technology Center in Granville, Ohio, was awarded WHC Gold Certification in February 2022.

To achieve gold certification, sites are awarded points for the quality and quantity of onsite biodiversity programs, including physical programs such as prairie restoration and bird boxes, and engagement programs such as Nature Day walks and webinars. For example, in Granville, the following programs contributed to our certification:

- Install, monitor, and maintain bird boxes, and reporting results
- Bats and Biodiversity webinar, featuring a guest speaker from the Ohio Department of Natural Resources
- Bat boxes and species management
- Prairie restoration
- Pollinator garden

In 2022, our Science & Technology Center in Granville was a finalist for a WHC Award for our work in protecting bat populations in the area.

Science Based Targets Network

By 2025, we intend to have specific goals for protecting biodiversity. To help us meet that target, in 2022, we worked internally to interpret Steps 1 and 2 of the Science Based Targets Network’s (SBTN) initial guidance for businesses and assess our data needs in the supply chain, with the goal of building up the context and insights needed to successfully follow the SBTN guidance once finalized. Starting in 2023, we will further extend our capacity for protecting biodiversity by building out an assessment of our supply chain’s connection to biodiversity, with an expectation of engaging suppliers in the short term.

Owens Corning is a member of the SBTN, which is part of the Global Commons Alliance. The SBTN includes international environmental nonprofit organizations, agencies, and mission-driven entities. Its goal is to empower individuals, companies, and governments to become stewards of the environment using science-based targets — measurable, actionable, and time-bound objectives based on the best available science. The SBTN aims to develop methods and tools that help companies set goals and actions toward understanding and preventing negative impacts on nature and biodiversity by expanding on the successes of the Science Based Targets initiative (SBTi). This, in turn, fosters an atmosphere that builds momentum toward our collective goals.

Maintaining this partnership positions us to align our efforts with a wide range of nature-related sustainability goals established by the United Nations and incorporated into broader frameworks by the SBTN. These goals address a range of global concerns, including ecosystems, extinction risks, land degradation, climate change, and sustainable development. Our participation in the SBTN will enable us to further support sustainable development and contribute to the advancement of target-setting methodologies that can be adopted throughout the private sector.
**Speaking of Sustainability**

Veronica Sjödin  
Senior Environmental Specialist

As planning began on an expansion to our facility in Hällekis, Sweden, it was discovered that the area was a habitat for a wide variety of species, including frogs, newts, salamanders, and snakes. A new habitat has been constructed to protect these species, and Veronica Sjödin has been a key figure in this process. Veronica has been an environmental specialist with Owens Corning for five years, and she has seen biodiversity emerge as an important topic at her facility and throughout the company as a whole. She shares her perspectives on this biodiversity initiative, and how they connect to Owens Corning’s overall approach to sustainability.

"For many companies, protecting biodiversity is a result of the work they’re doing. Owens Corning has set it as a specific topic, and I think that’s quite unique."

**On partnering with other organizations to protect biodiversity**

We are members of a local organization that protects biosphere areas, and we have been talking with them about how to proceed with the habitat. We are also talking about whether we can do anything more when it has been built. We want to let people know about the frog ponds, so we hope the organization can use this as an example when they are out talking in schools. As kids learn about this habitat, maybe it could be a place to go for excursions to learn more about the frogs and other species. I think many families would like to come see if they can see salamanders and other species in their habitat.

**On her personal connection with the natural world**

I spend a lot of time in nature. I practice orienteering, where you go running in the forest, looking at a map to find the checkpoints. I live quite close to the Hällekis factory, which is such a beautiful nature area. I think we need to have biodiversity and to allow nature to evolve as it wants to and not trying to steer it as much as we do. I do believe that we need to think about biodiversity more. In Europe, there is some discussion around biodiversity, but I don’t think that companies are talking much about it and what impact they can have.

**On the steps individuals and companies can take to safeguard species**

I think climate change will affect biodiversity quite a lot. I think whatever you can do, even if it’s just one small thing, can make a difference. I think we all need to take it step by step, and then expand our efforts to reduce our impact. I think we need to do this both as individuals and as a company. The environmental goals that Owens Corning has set will reduce our impact on the climate. I come from the Insulation business, and we have products that also reduce climate effects. We are in a good position as a company because we do things that contribute to the environment in a good way.
Employees Take the Lead on Cleanup

Throughout the year, many Owens Corning employees were engaged in their communities, picking up litter and beautifying their environment.

- In May and August 2022, members at our Singapore facility participated in an event called UnLitter Red Dot. This initiative was launched in 2016 as part of Habitat for Humanity’s efforts to ensure clean and safe living environments. Employees cleaned up East Coast Beach in May and collected litter along Singapore’s Kallang River in August.

- As part of Earth Day observation in April 2022, employees at our Roofing plant in Irving, Texas, U.S., gathered to clean up trash around the facility.

Protecting Species Habitats in Hällekis, Sweden

As discussed on page 74, we have been taking action to protect local species during the preparations for and construction of an expansion at our site in Hällekis, Sweden. During the process of clearing a 13-acre (5.4-hectare) plot of land near the site, we determined there was a need to take action to protect four native species of frog, toad, newt, and lizard. To protect them, they needed to be relocated to another habitat — a pond near the plant but away from construction activity. This relocation was performed in conjunction with a third-party wildlife expert.

Our work to protect these species is continuing into 2023, as plans are in place to deepen an existing pond, making it a better breeding habitat for these species. In addition, a new pond will be created, which will help create a more stable habitat as the area where the species have been moved is connected to another area further from the site. Plans are also in place to make the pond next to our factory accessible from a nearby walking trail, along with signage that provides information about the species and our work to protect them.

Photo submitted by:
Nathan Hoisington-Shaw | Granville, Ohio, U.S.
Park cleanup at Scioto Audubon Metro Park, Columbus, Ohio, U.S.
Mining, Quarries, and Their Impacts on Biodiversity

We recognize that our own operations are only a part of the impact that our business has on biodiversity. We operate a number of quarries that extract industrial rock from the earth, and we purchase materials extracted by other companies as part of our global supply chain. To assess and continuously improve the sustainability of each product, we need to thoroughly understand and be able to influence or manage the product’s footprint.

As part of our plans for biodiversity, we will expect our suppliers to meet environmental performance standards, protect local habitats, and maintain an overall commitment to sustainability. Environmental, social, and governance risk exposures are part of our overall approach to prioritizing suppliers. Details can be found in the Supply Chain Sustainability chapter of this report.

Environmental Impacts of Our Quarries

In contrast to many traditional mining operations, all industrial rock sourced from our quarries is used in some capacity. In fact, we ensure that there are solutions in place for all materials extracted from the quarries.

- Fine granules that are not directly relevant to stone wool production are either sold into the glass industry, used in construction, or compacted into briquettes, which can then be used as inputs for stone wool production.

- Usable stone is sent to our manufacturing sites to create stone wool.

- Rock that is not suitable for stone wool, known as “country rock,” is used to provide infrastructure for the quarry, to shore up sediment embankments, and as aggregate material for building projects.

In addition to managing stone waste, we manage our quarries’ soil and water impacts. Topsoil moved in the development of a quarry is kept on-site. Most becomes part of the landscape again, as grass and trees grow in, while some is used as filler in quarry infrastructure.

Our ownership of Owens Corning Paroc and the rights to eight mining concessions in Finland includes sources of direct mineral extractions and source industrial minerals. Following our acquisition of these quarries in 2018, Owens Corning implemented our own internal auditing standards on the sites, seeking to protect local habitats and gauge any potential environmental impact. Consistent with our other initiatives, our approach has sought to extend beyond mere compliance. To this end, the management systems at each active quarry are third-party verified to ISO 14001 (2015) and ISO 9001 (2015), ensuring systems are in place that integrate consideration of environmental impacts into operations.

Photo submitted by:
Priyanka Ruparel | Mumbai, India
Chicham Bridge
OUR PATH TO CONSERVATION

As we work to establish our 2030 goals for protecting biodiversity, we will review our pilot assessments and apply the information we learn from them to our work at our sites. In addition, we will continue to use available data and build upon established foundations that will guide our actions at the value-chain level.

We will also rely on the support of our employees, many of whom have already demonstrated enthusiasm for protecting the species that share the land on which we operate, including through their cleanup efforts and species adoption plans. As our people bring their passion for conservation and species preservation to the work we’re doing worldwide, we can approach our goals and aspirations with greater confidence.

Photo submitted by:
Emma Barrasso | Toledo, Ohio, U.S.
AIR QUALITY MANAGEMENT

In this chapter:

- 2030 AIR QUALITY MANAGEMENT GOALS
- THE ROADMAP TO OUR 2030 GOALS
- THE IMPORTANCE OF REDUCING AIR EMISSIONS

As a global manufacturing company, Owens Corning recognizes the potential impacts of our operations, including from emissions that are released into the air. We understand that we have a responsibility to effectively manage these emissions as part of our commitment to reducing our footprint and building a better future.

We stand by our commitment to air quality because we realize this is an issue that impacts life outside our facilities. Improving air quality is part of our larger focus on mitigating our impact in the areas where we serve, and beyond.

The energy data in this chapter was independently assured to a high level by SCS Global Services. For more information on the assurance process see About the Report, and for our verification statement please see Appendix F.

For the data in this section, baseline adjustments were made following the World Resources Institute (WRI) protocols. Read more on page 262 in About the Report.

We have the opportunity to improve our processes and reduce our impact on air quality in the areas where we operate.

Photo submitted by:
Susan Raneri | Massachusetts, U.S.
By 2030, we will reduce the aggregate intensity of the emission of volatile organic compounds (VOCs) and fine particulate matter (PM2.5) by 50%.

Volatile organic compounds (VOCs) are certain carbon compounds that evaporate into the air at room temperature and contribute to ground level ozone formation. They are found in manufacturing processes and are used in many types of products, including building materials. VOCs represent a broad category of emissions, including formaldehyde and other toxic air emissions.

50% aggregate intensity reduction in VOC emissions (metric tons normalized by revenue, in millions) from 2018 baseline.

This improvement of 40% is due to equipment upgrades and improved efficiencies.
Fine particulate matter (PM2.5) refers to tiny, inhalable particles that can be released during chemical reactions and mechanical processes, including those that occur in the manufacturing process. The number denotes the aerodynamic diameter of the particulate matter, in this case 2.5 microns or less. For comparison, a grain of sand is about 90 microns.

50% aggregate intensity reduction in PM2.5 emissions (metric tons normalized by revenue, in millions) from 2018 baseline.

This improvement of 30% is due to equipment operations and maintenance optimization.
In addition to the targets we have set for VOCs and PM2.5, we also work to reduce the following emissions:

- **Nitrogen oxides (NOx)**, which are gases that contribute to air pollution, including smog and acid rain.

- **Sulfur oxides (SOx)**, which are gases that contribute to air pollution and can harm plant life, contribute to acid rain, and can cause health impacts in humans.

We manage, track, and report against NOx and SOx air emissions requirements. The ways we measure and control NOx and SOx vary by location and local regulatory requirements. A significant source of these emissions is from combustion, and we use combustion-related emissions factors to calculate our footprint where it's practical. We also perform testing in some facilities to directly measure emissions, depending on equipment and processes.

We follow industry best practices to control emissions from combustion processes. In addition to routinely inspecting and tuning boilers and other types of burners, we work to ensure optimal fuel mixtures to promote optimal air quality.
Owens Corning has established a number of short-, medium-, and long-term strategies to help us achieve our air quality objectives.

**SHORT-TERM STRATEGIES**

- Maximize efficiency through equipment and maintenance optimization. We are working to ensure that the equipment we use to control emissions — incinerators, dust collectors, scrubbers, etc. — are operating as reliably and efficiently as possible. Employees across our operations are using the principles of Total Productive Maintenance to achieve this objective.

- Leverage life cycle assessments (LCAs) and use principles of product stewardship when developing new products or improving existing products. More information about our commitment to these strategies for sustainable innovation can be found beginning on page 148 of this report.

**MEDIUM-TERM STRATEGIES**

- Explore and implement process changes to lower manufacturing-related emissions. Owens Corning’s experts act in partnership with our business units and plants to ensure that we understand the impact of potential changes to our processes and plan accordingly for future events.

- Drive innovations that reduce emissions from our products. We will continue to use the principles of product stewardship to evaluate use-phase impact during product development.

- Explore and test innovative air emissions control technologies. To ensure consistency of testing for air and PM2.5 emissions, our experts oversee testing at our facilities and then review and verify the results and findings.

**LONG-TERM STRATEGIES**

- Design products with low emissions from both the manufacturing process and product use phase. We have seen the impact of this strategy through the conversion of our residential EcoTouch® insulation. By shifting to a starch-based, formaldehyde-free binder, we have reduced the emission of PM2.5.

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**Eliminating Formaldehyde from Our Products**

One of our key air quality management initiatives is to eliminate formaldehyde from our product formulations. Binder, which commonly contains formaldehyde, is an important component in many insulation and nonwoven composite products. Owens Corning is developing formaldehyde-free binder technologies that reduce formaldehyde emissions from our manufacturing process and our products. By eliminating formaldehyde from the formulation, we eliminate formaldehyde emissions from our products during use to help improve indoor air quality.

**Binder for cushioned vinyl flooring and insulation**

Two of our nonwoven composite products use formaldehyde-free binder technology. In addition to using formaldehyde-free ingredients, the binder improves the mechanical performance of the glass composite at elevated temperatures such as those typical in the cushioned vinyl flooring manufacturing process.

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*More products that do not use formaldehyde are found on the next page.*

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Photo submitted by: Kelly Picking | Toledo, Ohio, U.S.
Insulation Products with Formaldehyde-Free Binders or No Binder Applied

U.S. & Canada

- AttiCat® Loosefill Insulation
- EcoTouch® Certified R Metal Building Insulation
- EcoTouch® Batt and Roll Insulation with PureFiber™ Technology
- EcoTouch® Faced Insulation (Kraft, FS-25, Foil, PSK)
- EcoTouch® Insulation for Flexible Duct
- EcoTouch® QuietZone Acoustic Insulation
- EcoTouch® MBI Newark Products (Monarch binder)
- EcoTouch® MBI Plus Metal Building Insulation
- EcoTouch® Metal Building Utility Blanket
- GEM® Insulation
- ProCat™ Unbonded Loosefill Insulation
- ProPink® MultiSpec™ Loosefill Insulation

- ProPink® Unbonded Loosefill Insulation (L77)
- PINK Next Gen™ Fiberglas™ Insulation (EcoTouch® and Monarch 0 binders)
- PureSolution® Technology Products (GEM®, NuCore™, InsulGuard™, TRS with PST)
- QuietZone® Acoustic Batts with PureFiber™ Technology
- RA Series EcoTouch® Insulation
- SonoBatts, Sound Attenuation Batts with PureFiber™ Technology
- Thermafiber® FF Products (FF SAFB, FF Fire & Sound Guard Plus, FF Safing, FF FireSpan 40 & 90)
- ThermoRange® System (TRS) Insulation
- Utilicore® Insulation

Mexico

- Duct Wrap LF Fiberglass Insulation
- ThermoRange® System (TRS) Insulation

Asia Pacific

- Unfaced EcoTouch® Insulation
- Kraft-faced EcoTouch® Insulation
- Non-Added Formaldehyde Mineral Wool

Maintenance Training to Reduce Air Emissions

In 2022, we delivered a full suite of training courses related to a specific type of control equipment, the electrostatic precipitator, which uses an electric charge to reduce air emissions. This complex equipment is used at three of our bonded fiberglass insulation plants. Through these courses, we worked to establish and standardize preventive maintenance and troubleshooting protocols, which will enable us to improve equipment operating efficiency and operate for longer periods of time. To complement this training, we staged on-site, hands-on maintenance workshops to build knowledge and skill around completion of preventive and corrective maintenance actions on this specialized equipment. We plan to continue this training going forward.
SPEAKING OF SUSTAINABILITY

Patty Hemmelgarn
Air Compliance Lead

Although Patty Hemmelgarn has only been with Owens Corning since 2021, she brings with her a wealth of experience in air quality management. Patty has focused on air quality and compliance for her whole career, including at a consulting firm working with the U.S. EPA on air quality issues, at the Ohio EPA Division of Air Pollution Control, and as the air compliance lead for two global chemical manufacturing companies. By bringing her expertise to Owens Corning and working to prevent air quality issues before they occur, Patty believes she is able to have a real impact on our environment.

On what makes Owens Corning’s approach unique
At some other companies where I’ve worked, the sustainability group and the environmental group are not linked — they’re two separate pieces of the organization. Also, at many other large companies, management of air emissions is wholly separate from the sustainability program. At Owens Corning, our enterprise environmental team is housed under the sustainability umbrella. That’s something that sets us apart, and gives the environmental piece a bit more attention than I’ve seen in other organizations. It demonstrates that Owens Corning really does focus on sustainability in all aspects of the company.

On the importance of operationalizing sustainability
We need to not only look at how our products are manufactured, which is my role here, but how they’re used by our customers. We need to make sure that air emissions are reduced in our manufacturing and in our products. Operationalizing sustainability on the air quality side involves making sure that, when changes are made to our equipment, we find solutions to reduce our air emissions or prevent them from being generated in the first place. We can also look at these as opportunities to research a better way to make every change, not just the big ones, but also those small changes we make. There are a number of little tweaks that we can do on every project at each site to reduce air emissions and overall environmental impacts.

On why sustainability is central to Owens Corning’s mission
Our commitment to sustainability really starts with our products, which help homeowners improve their energy efficiency. So it’s not just sustainability in our manufacturing locations, but also helping with the sustainability of everyone who uses our products. We have a lot of very smart, talented people who work at Owens Corning and I think we have the resources within our company to achieve our sustainability goals. Our attention is focused in the right place, and it’s focused together.

“ What I really like about Owens Corning is our commitment to sustainability and how we are working to operationalize it. ”

Photo courtesy of Patty Hemmelgarn.
THE IMPORTANCE OF REDUCING AIR EMISSIONS

Air quality management is a critical part of our overall sustainability strategy, including our work to promote environmental justice. At Owens Corning, we take seriously the idea that people everywhere should have comprehensive information about the quality of the air they breathe.

Owens Corning is exploring innovative technologies aimed at reducing pollution, smog, and other environmental impacts related to air emissions. At the same time, we recognize that many of the major advancements in air quality management will come from innovations in our processes and developing ways to capture particulates and prevent them from escaping into the atmosphere.

Photo submitted by: Emma Barrasso | Toledo, Ohio, U.S.
RESPONSIBLE WATER SOURCING & CONSUMPTION

In this chapter:

- 2030 GOALS FOR RESPONSIBLE WATER SOURCING & CONSUMPTION
- THE ROAD MAP TO OUR 2030 GOALS
- FACILITATING RESPONSIBLE WATER USE
- GAUGING OUR PROGRESS IN WATER CONSERVATION
- OPERATIONALIZING WATER CONSERVATION
- CONSERVING WATER FOR COMMUNITIES EVERYWHERE

We recognize that increased water scarcity and rising costs impact our operations as well as people in the communities where we operate. To fulfill our commitment to strategic, sustainable water use, we must minimize our consumption and ensure that the production, use, and disposal of our products do not contribute to water contamination.

Since 2018, our conservation and efficiency efforts have avoided more than 1.6 million cubic meters of water, saving more than $1.5 million in water intake related costs — and enough drinking water for about 1.4 million people for a year.

The energy data in this chapter was independently assured to a high level by SCS Global Services. For more information on the assurance process see About the Report, and for our verification statement please see Appendix F.

For the data in this section, baseline adjustments were made following the World Resources Institute (WRI) protocols. Read more on page 262 in About the Report.
By 2030, we will cut in half the amount we take from local water supplies in places where water is limited in quantity or quality. In addition, we intend to ensure that our other facilities remain at the same water intensity as our base year of 2018, or lower when aggregated.

We have established the following targets to guide our water conservation efforts:

50% aggregate intensity reduction of water withdrawal in high water-stress sites, compared to the 2018 baseline.

Remain flat or reduce aggregate water withdrawal intensity at all remaining sites, compared to the 2018 baseline.

Our work to promote continued water use efficiencies (for example, prioritizing fixture upgrades and repairs) in our facilities led to a 25% reduction in intensity at our sites located in areas of high water stress in 2022, as well as a 32% reduction in intensity at our remaining sites, compared to our 2018 baseline.

We source water for our operations from municipal water supplies, on-site wells, stormwater, off-site bodies of water, and third parties. This year, we withdrew 11,045,530 cubic meters of water, a 4% absolute increase compared to 2018.

From 2018 to 2022, our absolute water withdrawal increased by 4%. Approximately 73% of the water we used in 2022 was taken from municipal water supplies.
Owens Corning believes that goals for responsible water sourcing and consumption, can be achieved through the following strategies:

### Short-Term Strategies

- **Conduct annual water risk assessments, identifying high-water-stress areas for all our sites.**
  Water-related risks and availability of supply vary across our geographies, processes, and product lines. To minimize the impact of these challenges at our locations, we perform regular risk assessments using the World Resources Institute (WRI) Aqueduct Water Risk Atlas. Learn more about water risk assessments on page 90.

  The WRI Aqueduct Water Risk Atlas enables us to screen our sites for high and extremely high baseline water supply stress, 2030 and 2040 projections for water supply stress changes, frequency of drought, upstream water quality, and other metrics. We combine the tool with established internal knowledge and best practices at facilities located in water-stressed areas to ensure responsible water usage. Learn more about our work in this area on page 93.

- **Increase water efficiency through equipment and maintenance optimization.**
  This includes a range of initiatives, such as leak detection, meter installation, and water mapping, which have lowered operating costs and further reduced our dependence on local and regional water sources. A considerable portion of the reductions we have made since 2018 can be attributed to our low- or no-cost efficiency efforts, in addition to more significant capital investment projects.

- **Engage employees to raise awareness of best water use practices.**
  We empower our employees to use the principles of Total Productive Maintenance (TPM) to prevent and fix problems, including issues related to water efficiency.

- **Assess our operations for additional reuse and recycling opportunities.**
  One pillar of TPM, Focused Improvement, encourages our teams to identify and address issues and ensure continuous improvement across our operations, including ways we can source water even more responsibly.

### Medium-Term Strategies

- **Deepen our understanding of our water consumption through water balances and life cycle assessments (LCAs).**
  A water balance looks at the amount of water going into our processes, the amount of water going out, and what we do with it in between. By understanding where we are consuming water, we can find opportunities to reduce our overall usage. Our understanding can be shaped through loss analysis and the use of focused improvement tools from Total Productive Maintenance. LCAs help us identify the amount of freshwater consumed during the life cycle of each of our products. Owens Corning has conducted full LCAs on 82% of our products.

- **Explore and test innovative water recycling technologies.**
  Owens Corning seeks to increase water recycling practices throughout our operations. Learn more about these efforts on page 91.

- **Engage with suppliers to understand water use and risk in the value chain.**
  We conduct an annual supplier survey, which includes information about whether suppliers have goals to reduce water usage and strategies for water management in water-stressed areas.

### Long-Term Strategies

- **Continue to explore and proceed with key investments in infrastructure.**
  We have already made a number of investments in infrastructure recently, and we will continue to look for opportunities that will increase water efficiency and improve water quality in areas where we operate.

- **Continue employee and stakeholder engagement to raise awareness of best water use practices.**
  Stakeholder engagement is critical to mitigating any future conflicts, and we work to establish positive relationships with the communities where we operate. We proactively engage with local stakeholders on an as-needed basis, including when we build, expand, or update our facilities. By working with stakeholders at all levels — including the local level — we can continually optimize water usage and reduce consumption and waste.
As we work to operationalize responsible water use, the following concepts are essential to our approach:

Water Risk Assessments

Since 2018, Owens Corning has measured its water risk using WRI’s baseline water stress metric, which WRI describes as a strong proxy for all aspects of water risk to a business’s operations. As this metric takes into account the supply and demand stress of regional water withdrawal, it provides a more complete understanding of water-stressed areas.

Owens Corning undertook our 11th annual water risk assessment in 2022 — our fifth year using multiple water stress factors taken from the WRI Aqueduct Indices to define our metric. We used the findings from this analysis in conjunction with our sites’ 2022 water intake and discharge statistics. Collectively, this assessment informs the development of our water management plans to optimize water efficiency at facilities in water-stressed regions with high water demand.

Our baseline water stress analysis identified that, of our sites that were active in 2022, 29 were in water stressed areas we classified with our metric based on multiple factors taken from WRI Aqueduct Indices. Our facilities at these sites accounted for 37% of our overall water withdrawal, as well as 44% of our overall water discharge, in 2022.

Read more about our water risk assessments, including an updated supply chain risk assessment, in our CDP Water Security 2023 Report, which will be published later this year on our sustainability website.

Water-Stressed Areas and Context-Based Targets

The information gained from screening our sites using the WRI Aqueduct Water Risk Atlas in conjunction with the internal knowledge of our people provides us with a framework to develop our targets and measure our progress.

The WRI Aqueduct Water Risk Atlas features 13 indicators that address the quantity and quality of physical risk, as well as regulatory and reputational risks. The atlas provides us with a framework to develop our targets and measure our progress, and we look at these indicators as we ask the following questions:

- Which of these indicators could have a direct impact on our ability to withdraw water?
- Which of these indicators could our water withdrawal directly impact?
- For which of these indicators would decreasing our water withdrawal by 50% directly matter?

Based on those questions, we selected seven indicators that have the highest relevance to our operations. The following three indicators are significantly relevant and are emphasized in our internal evaluation and scoring of our facilities.

- **Baseline Water Stress.** This indicator compares the water withdrawn to the water available in a given subbasin. Each subbasin is part of a larger basin that drains into an ocean or lake at a single point. Since water demand is usually local, the WRI Aqueduct Water Risk Atlas measures water withdrawal at the subbasin level, and the tool’s main selection criterion is the average distance from supply to destination. This indicator also measures competition among users.

- **Baseline Water Depletion.** Although similar to baseline water stress, which considers total withdrawals, baseline water depletion is calculated based only on the amount of water consumption. In alignment with WRI Aqueduct Water Risk Atlas definitions, we define consumption as water that does not return to the basin. We measure our consumption to track the ways our water withdrawal impacts local water supply and decreases water availability for downstream users.

- **Drought Risk.** In addition to measuring the probability that drought will occur, this indicator considers the magnitude of the impact based on the exposure and vulnerability of the affected population and assets.

We also consider the following indicators to be relevant to our operations:

- **Interannual Variability.** The variations in available water supply from year to year.

- **Seasonal Variability.** The average variability within a year, including both renewable surface and groundwater supplies.

- **Unimproved/No Drinking Water.** Areas where people have less access to safe drinking water. This measurement does not evaluate the availability of water or the actual quality of water; it only measures the proportion of the population without access to treated drinking water.

- **Peak RepRisk.** A third-party index that quantifies business risk exposure to ESG issues in a given country.
We have developed context-based targets to address our potential impact on water conditions around the world. Context-based targets address both our need for water as well as the needs of the communities where we operate.

Our contextual targets are based on a score for each facility, which is derived through calculations based on these indicators. A site is included on our list of high-water-stress areas if it meets the following criteria:

- The facility has a high-risk score in the three significantly relevant indicators
- The facility has a high total score based on all seven indicators

This approach allows for a multifaceted evaluation of our water use and impacts.

The 29 sites currently on our list serve as the baseline for our 2030 goals, but we also have a watchlist for all sites where there is a water risk that could change over time. Each year, we will evaluate all sites according to these indicators, and context-based targets will be added as needed to address high water-stress areas.

**Sites for 2030 Context-Based Targets**

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**Gauging Our Progress in Water Conservation**

**Water Recycling and Recirculation**

**Recycled water** refers to water that is used in the production of prime product and is then pulled out of a specific production process area, mechanically and/or chemically treated, then returned to the same process or used in a different area (either production-related or nonproduction-related).

**Recirculated water** refers to water that is used in a closed-loop system in the production of prime product. This water only exits the recirculating system when it evaporates or when the recirculating system is flushed or cleaned.

At the site level, we track recycled and recirculated water monthly, along with water withdrawal, water use, and water discharge. Most of our withdrawal data comes from invoices and meter readings, which are supplemented by calculations based on process knowledge and production levels. All sites are required to follow our detailed water governance documentation to ensure standardization and accuracy.

We have taken steps to increase recirculation and recycling of water at our plants, which decreases intake, treatment, and discharge costs. In several Composites manufacturing facilities, for example, process water is recycled and used for cooling towers and landscaping. Additionally, since 2018, we have increased water recirculation percentages in our Insulation facilities where processes support using recirculated water. As a result, we have seen a significant decrease in water withdrawal, despite increasing production in these facilities. This reduces our footprint in the communities where we operate while also benefiting the company financially.

In 2022, Owens Corning facilities recycled a total of 4%, or 455,645 cubic meters, of water withdrawn, and we recirculated 2,061%, or 227,600,401 cubic meters of water withdrawn. Many of our facilities currently calculate recycled or recirculated water. This includes some of our Composites facilities and most Insulation facilities, excluding Owens Corning Paroc and a number of FOAMGLAS® insulation sites.
Discharge Compliance
Owens Corning facilities comply with national, state, and local regulations and permits regarding water withdrawal and wastewater discharge.

Our businesses use water in different regions with different regulations and in different processes. As a result, our water management approach is tailored to the site level. At applicable sites, we actively monitor relevant effluent data, including chemical oxygen demand (COD), biochemical oxygen demand (BOD), and total suspended solids (TSS), and we collaborate with external organizations to verify our discharge information. Where it is necessary to meet discharge requirements, we pretreat or treat our wastewater prior to discharge accordingly. Most of our sites are charged for their water discharge, and all our sites are expected to comply with local regulations.

In 2022, we discharged a total of 5,387,315 cubic meters, which represents a 5% improvement from the base year of 2018. This includes discharges to publicly owned treatment works (POTW), surface water sites, off-site shipment, and other destinations.

Regarding environments that are around our facilities, discharges are controlled through permits and required monitoring. Moreover, several of our facilities have achieved a zero-discharge level (other than water discharged for irrigation). Unauthorized discharges and runoff must be reported to our environmental and legal departments, and corrective action must be taken. Employees are subject to disciplinary action for knowingly failing to comply with legally required environmental reporting.

Impact on Local Water Bodies
We evaluate all our facilities to determine their proximity to sites listed as ecologically sensitive or significantly important to maintaining biodiversity. Aquatic evaluations are also completed at the corporate level to determine if any of our facilities are located near rare, threatened, or endangered species; sensitive habitats; or species on the International Union for Conservation of Nature's (IUCN’s) Red List of Threatened Species. Water withdrawals from our facilities do not exceed volume thresholds, and we do not extract from Ramsar Wetlands sites or other highly sensitive water resources based on our knowledge of suppliers and sources.

Owens Corning is not impacting any specially protected bodies of water and related habitats, as defined at the country level by the UN World Heritage Sites, UN Biosphere Sites, or Ramsar Wetlands. This determination is based on an evaluation that we conduct annually, which continues to demonstrate our manufacturing sites’ lack of proximity to these defined sites or species.

For more information about these efforts, please see the Protecting Biodiversity chapter of this report.

Photo submitted by:
Megan Moore | Guelph, Ontario, Canada
St. Joseph Island, Ontario, Canada
OPERATIONALIZING WATER CONSERVATION AT OWENS CORNING

By increasing efficiencies and integrating new technologies throughout our operations, Owens Corning facilities are making the improvements that will make our 2030 goals for water conservation a reality. From relatively minor fixes to large-scale endeavors, each advancement we make contributes to achieving the aspirations we have established for ourselves. The following are some of the more prominent examples of our people delivering encouraging results around the world.

**Yuhang, China**

Improvements to the wastewater treatment system (WWTS) began in 2020, with the Yuhang team developing ways to recycle treated water. After developing a water usage map and water quality requirements for every tap water consumption point, the team prioritized projects that would enable them to use recycled water throughout the process. Water discharged into the WWTS will be reused into the insulation line’s wet electrostatic precipitator, keeping the water clean and reducing volatile organic compounds. Treated water will be used in the furnace emissions treatment system for both the composites line and the insulation line, as well as in basement fiber washing and the water treatment system washing. With these improvements in place, the facility is now recycling 305 to 405 m³ of water per day.

**Gastonia, North Carolina, U.S., and Aiken, South Carolina, U.S.**

We are using advanced process monitoring software at these two sites, enabling us to gauge the raw materials and product chemicals going into our manufacturing processes and compare that to the product output. If there are discrepancies between our product design standards and the actual product output, operations teams receive an alert to investigate for the presence of chemicals in the wastewater. We are also evaluating the possibility of using sensors to monitor water and open or close control valves to contain wastewater for further treatment of off-site disposal.

Better Plants Challenge

Beyond the local level, Owens Corning is a partner in the Department of Energy’s Better Plants Challenge, through which we have pledged to improve our water withdrawal intensity by 15% in our U.S. operations by 2030, using 2018 as our base year. The Challenge requires an additional commitment from partners to share corporate data, solutions, and successes to help guide other industrial companies.
SPEAKING OF SUSTAINABILITY

Isabel Fernandez
EHS Leader, Tlaxcala, Mexico

As Owens Corning has worked to reduce our environmental impact at our plant in Tlaxcala, Mexico, Isabel Fernandez has played an essential role. She has been with Owens Corning for eight years, serving first as an environmental engineer and then as an EHS leader. With a background in chemical engineering, Isabel is deeply committed to issues of sustainability, both at work and in her home life. In addition to ensuring that her facility complies with environmental requirements and maintains a sustainable work environment, Isabel works to spread the word about the importance of recycling, the circular economy, and other sustainability topics throughout her community.

On the benefits of overseeing a multidisciplinary team
As an EHS leader, I’m responsible for ensuring that we achieve all our environmental goals — in this case, water recirculation and recycling projects. A multidisciplinary team gives us more opportunities to figure out some issues. We need the input from the maintenance team, the focused improvement team, and the production team, because they know the processes. They know what is needed, the opportunities, and the gaps. If we work together, we can develop specific actions and implement improvements to decrease that the environmental footprint in that area. In 2022, our multidisciplinary team developed a water reuse project, using treated water in the spraying system to clean the vents in the chopped strand mat line. We are decreasing the well water consumption between 120 and 150 cubic meters per day. We have had very good results as we have increased performance without deviations and without impacting the quality.

On the positive impact that manufacturing can have
When industries or companies put their efforts into identifying the environmental impacts of their processes, and they implement countermeasures and technologies and specific projects, they can change the world. Industries generate a big impact on the environment. We need more awareness, we need more education on this topic, and we need to develop good strategies to achieve at all levels.

On the value that Owens Corning places on water conservation
I’m very passionate about sustainability issues. I really appreciate all the efforts of our people to reduce our environmental impact. Owens Corning has done very well identifying its environmental impacts. They have defined clear objectives that allow the facilities to manage those impacts, and they have provided us with the resources to address them. This year we had the opportunity to improve our wastewater treatment plant, which will allow us to recycle more water into our processes. This is very important because in many places in the world, water is a limited resource. Water is one of the most important and indispensable resources for people and industries, so we need to develop objectives that focus on water reduction or water recycling. The efficient use of water tells us that this is a good organization with a strong culture.

"Sustainability needs to be part of our culture at all levels. It has to be part of our education in our schools and at home."

Photo courtesy of Isabel Fernandez.
WATER SUSTAINABILITY
IN GUELPH

In Guelph, Ontario, Canada, many people are passionate about environmental concerns — especially those related to water usage — and many of those people are Owens Corning employees. In recent years, our people in Guelph have been involved in several water conservation efforts that we expect will deliver great results.

After gathering the site’s engineers and the leadership team to identify areas for water sustainability enhancements, the decision was made to use the principles of Total Productive Maintenance to determine the areas where we could improve water use efficiency through water reuse and recycling. We also collaborated with representatives from the City of Guelph’s Water Smart Business Program as well as with external consultants who completed a water audit. From there, we developed a schematic of water use throughout the facility and created graphs that present peaks in water use, which helped drive water conservation projects.

Our progress is ongoing, and we have completed several projects since 2020, including the following:

■ We implemented seal water flow control with indicators on our continuous filament mat (CFM) binder system pumps. This has reduced water consumption for the pump seals by more than 60%, contributing to an expected reduction in facility water consumption of 14,400 liters/day.

■ In our analysis, we located an opportunity to recover chilled water and reuse it in our process cooling operations. Additionally, the system that we have introduced uses chilled water that has already been chemically treated, contributing to reductions in our chemical usage. Recovery of the pretreated chilled water is expected to result in an average water recovery of 7,000 liters/day.

■ Overflows in our cullet water system represented another opportunity for conservation. External analysis determined that overflow water could be filtered and recovered, and we developed a system in which recovered water passes through a two-stage filtration system prior to being reused in our processes. This initiative is expected to result in an average water recovery of 31,600 liters/day.

■ We replaced our deionizing water system with a reverse osmosis system, enabling bleed water to be reused in the system. This has led to the elimination of strong acidic and basic chemicals, reducing both the potential safety and environmental impact of our operation. In 2022, we removed one cooling tower and replaced two others. In doing so, we have been able to reduce evaporative water loss from the process water system.

Throughout the implementation of these innovations, we have sought to demonstrate transparency to the people of Guelph. We have shared our efforts with the community and received positive feedback and support. Informing the public of our efforts helps us live up to our aspirations — and serve as good corporate citizens.

Photo submitted by:
Frank Peel | Guelph, Ontario, Canada
CONSERVING WATER FOR COMMUNITIES EVERYWHERE

Our focus on context-based targets helps us refine our approach to water use. It enables us to ensure that people’s access to safe, clean water is not jeopardized as we source and use the high-quality water needed to operate. This emphasis on the needs of our communities is part of our overall commitment to environmental justice — the belief that people should have the same opportunities to make informed decisions and take action on environmental issues.

In addition, we will continue to help our suppliers understand the risks associated with their water use and encourage them to take measures to source and consume water responsibly. By collaborating across our entire value chain, we can have a positive cumulative impact on water supplies and help ensure a sustainable future for communities in which we operate.
WASTE MANAGEMENT

In this chapter:
- 2030 GOALS FOR WASTE MANAGEMENT
- THE ROAD MAP TO OUR 2030 GOALS
- OPERATIONALIZING WASTE MANAGEMENT
- THE IMPORTANCE OF CLOSING THE LOOP ON WASTE

Reducing waste is among the most crucial challenges Owens Corning faces as we seek to lessen our environmental footprint and achieve product circularity. We are actively working to reduce the volume of waste we produce at our facilities while increasing the materials we divert from landfill through recycling and diversion programs.

Over the course of our sustainability journey, we have set increasingly ambitious targets for waste management. We have continuously set aggressive targets for reducing the waste we send to landfill, even in the face of great challenges, and we are committed to operationalizing waste management at our facilities. Our people are taking decisive action to eliminate waste and help us achieve our 2030 waste management goals.

Ten of our sites have achieved zero waste to landfill (WTL), and many more are well on their way.

The energy data in this chapter was independently assured to a high level by SCS Global Services. For more information on the assurance process see About the Report, and for our verification statement please see Appendix F.

For the data in this section, baseline adjustments were made following the World Resources Institute (WRI) protocols. Read more on page 262 in About the Report.

Photo submitted by:
Michaela Haviarova | Klášterec, Czech Republic
Production of cartons used in the gluing of segments. The cartons are cut on a plotter from sheets that would otherwise be discarded.
By 2030, we will send zero waste to the landfill. This goal is one of our top strategic priorities among our sustainability efforts. We believe it can be accomplished through a two-part approach:

- **Reduce waste intensity by improving efficiency and process design.**
- **Repurpose or recycle the remaining waste.** We will also recycle waste back into our own processes wherever possible.

**ZERO Waste-to-Landfill**

Although we have seen a small decline in waste intensity at the enterprise level since 2018, this has been offset by an increase in production volumes. This has resulted in an overall increase in WTL for the enterprise. The primary increase in WTL comes from our Composites and Roofing businesses. The Composites business has seen an increase in waste intensity, primarily due to increases in quality issues related to raw materials, weather-related concerns, and staff turnovers throughout our operations. The decline in diversion in our Roofing business is mainly attributable to a loss in the number of outlets for our waste. Many outlets faced significant challenges during the COVID-19 pandemic, and several of them went out of business as a result.
Owens Corning looks for ways to reduce waste in all its forms — liquid, solid, hazardous, and nonhazardous — over the life cycle of all our products. We have a range of strategies to achieve zero WTL, including the following:

**SHORT-TERM STRATEGIES**
- Reduce waste intensity by improving operational efficiency and process design. By making our processes more efficient, we can reduce the amount of waste generated.
- Conduct life cycle assessments (LCAs) for all of our products to understand the waste impact of everything we produce.
- Increase the percentage of recycled content in our products and packaging materials through design innovations and operational improvements.
- Identify and activate solutions to reuse and recycle waste back into our own processes.
- Divert our waste into other applications and markets through external partnerships.
- Continually assess the efficacy of our waste management and recycling efforts for additional waste reduction opportunities and diversion strategies.

**MEDIUM-TERM STRATEGIES**
- Establish internal recycling capabilities across our three businesses.
- Continue to find new external outlets for specific waste streams.
- Focus research and development on glass fiber recycling technologies. We focus on the recycling of glass fiber because glass recycling reduces the demand for both energy and raw materials.

**LONG-TERM STRATEGIES**
- Invest in next-generation technologies that allow us to approach zero waste in our production processes.
- Invest in technologies and processes to modify waste glass fibers into raw materials, so they are of sufficient quality to be put back into production.
- Collaborate with strategic partners to support the recycling of glass and other waste streams.
- Expand our take-back programs for our customers.
- Support a circular economy model.

**Internal Processes and Accountability**
To achieve zero WTL, we must integrate functions across the enterprise that drive actions and result in reductions. Our environmental management system (EMS) is designed to ensure that we meet all regulatory requirements related to waste in adherence to our Environmental, Health, Safety, and Product Stewardship Policy. The EMS is a collection of policies and procedures regarding the management of environmental performance in our facilities, including compliance and footprint reduction. More information about the EMS can be found on page 173.

We also periodically assess the efficacy of our waste management and recycling efforts for opportunities to implement additional waste reduction and diversion strategies. Preventing waste throughout the life cycle of our products is an important product stewardship objective. Read more about our product stewardship efforts beginning on page 148.

Our circular economy team is responsible for driving waste reductions and fostering relationships with internal and external stakeholders across all our businesses to achieve our goals. We conduct periodic reviews to assess progress and take necessary corrective actions to further our waste mitigation objectives. Although all of our waste programs are subject to enterprise-level leadership review and reporting, many of our waste reduction initiatives begin at our manufacturing facilities where opportunities are identified for progress. These improvements are made possible by the dedication and ingenuity of our people, including those working on expanding our recycling efforts and increasing the recycled content in our products.
OPERATIONALIZING
WASTE MANAGEMENT

Accomplishing our waste management goals will require concerted effort at every Owens Corning facility around the world. While our goals are ambitious, they can be achieved through our commitment to zero WTL, designating resources throughout our businesses to identify opportunities for improvement, and the dedication of our employees, who regularly share best practices, recycling outlets, and ingenious ideas across our plants, businesses, and R&D operations to spur progress across the organization.

In 2022, Owens Corning successfully diverted 59% of the waste we generated away from landfills and toward other uses. Offtake customers have found value in these materials and successful transaction agreements have been established, and we continue to find new outlets for specific types of waste streams by region.

Although we have had a great deal of success diverting material from landfills, each business unit continues to have waste streams that are landfilled. In their current form, these streams are not usable in other applications. However, we are working to develop capabilities for diverting, recycling, and reusing these waste streams, both internally and with external partners that can help evaluate technology solutions for waste recycling. Our approach in handling these materials is to establish internal recycling opportunities for a more robust pathway to zero WTL. This approach can be seen in all three of our businesses.

The waste that is sent to landfill in our Composites business consists mainly of glass fiber. This is also the case for our Insulation business, specifically with the glass and mineral wool fiber waste streams. For this reason, we are investing in technologies and processes to modify waste glass fibers into raw materials, so they are appropriate for remelting and then fiberizing them into new fibers to be used within our operations.

Our Roofing business represents a relatively low percentage of our enterprise WTL, with shingle tear-off waste at the product’s end-of-life stage representing the larger landfill challenge. We are currently making advances in building a circular economy model for our roofing products at end-of-life, and the same technologies and systems we are employing can be leveraged to recycle the majority of the manufacturing waste from our Roofing plants. Learn more about our progress in shingle recycling on page 114.

The following are among the notable waste management initiatives conducted at Owens Corning in 2022.

**Gresham, Oregon, U.S.**
In October 2022, our FOAMULAR® plant established a take-back model with one of our customers, enabling us to introduce clean XPS waste material back into our manufacturing process. More information about this program can be found on page 114.

**Granville, Ohio, U.S.**
Our Science & Technology Center continues to participate in the Kimberly-Clark RightCycle program, which helps divert difficult-to-recycle materials such as disposable gloves from landfill. The RightCycle program makes it possible for gloves to be processed and used to make new products, including the chairs used in the outdoor common areas at the Granville facility. Since 2019, the site has diverted more than 1,100 pounds of gloves from landfill.

**Trzemeszno, Poland**
In 2022, our Trzemeszno facility introduced filter dispensers for drinking water. This has enabled us to replace disposable water bottles with reusable bottles, which is estimated to reduce our plastic consumption by more than nine tons each year.

Photo submitted by:
Michaela Haviarova | Klášterec, Czech Republic
Bio waste produced by our employees is collected in dedicated bins and then disposed of in a composter at the waste yard.
Excellence in Waste Diversion

Owens Corning facilities are committed to managing waste, and we are proud to recognize their accomplishments. We use an internal rating system focused on diversion from landfill compared to total waste generated. In 2022, 38 plants diverted more than 80% of their waste from the landfill.

### PLATINUM LEVEL
**100% WASTE DIVERSION**
- Asan, South Korea
- Changzhou, China
- Gresham, Oregon, U.S.
- Guangde, China
- Nanjing, China
- Parainen Science & Technology, Finland
- Qingdao Novia, China
- Ridgeview, South Carolina, U.S.
- Sayli, India
- Springfield, Tennessee, U.S.

### GOLD LEVEL
**>98% WASTE DIVERSION**
- Blythewood, South Carolina, U.S.
- Dapada, India
- Jiaobel, China
- Skövde, Sweden
- Tessenderlo, Belgium
- Trzemeszno, Poland
- Valleyfield, Canada
- Yantai, China
- Yuhang Glass Wool, China
- Yuhang Glass Reinforcement Solutions, China

### SILVER LEVEL
**>80% WASTE DIVERSION**
- Cleveland, Tennessee, U.S.
- Guangzhou, China
- Hämeenlinna, Finland
- Hälllekis, Sweden
- Keamy, New Jersey, U.S.
- Memphs Asphalt, Tennessee, U.S.
- Mount Vernon, Ohio, U.S.
- Parainen, Finland
- Portland Asphalt, Oregon, U.S.
- Rockford, Illinois, U.S.
- Santa Clara, California, U.S.
- Tallmadge, Ohio, U.S.
- Taloja, India
- Tianjin Glass, China
- Tiffin, Ohio, U.S.
- Toronto, Canada
- Vilnius, Lithuania
- Zele, Belgium

**Briquette Production**

Briquetting refers to the compression of industrial scrap and other byproducts. In their compacted shape, these briquettes can be reused as input material for cupola furnaces used in our operations. At several of our mineral wool sites, scrap rockwool and other byproducts are converted into briquettes. Although most of the briquettes are manufactured by third-party companies, briquettes made at our facility in Guangde, China, are fed back into the cupola.

**Reducing Sludge from Wastewater Treatment**

In recent years, we have undertaken notable initiatives to reduce process-related and wastewater treatment sludge while increasing our recycling of fly ash and shot, and we continue to expand our work in these areas. Some of our key initiatives include:

- Our facility in Taloja, India, is investigating the use of sludge from its wastewater treatment process for use in cement production.
- Our Yuhang, China, plant is focused on reducing sludge by improving binder application efficiency and reducing moisture content through dewatering.
SPEAKING OF SUSTAINABILITY

Ismo Kuokkanen
Sustainability Program Lead

Even at a young age, Ismo Kuokkanen was interested in sustainability issues. Now, as a sustainability program lead in Europe, Ismo is able to put his mechanical engineering background to work helping Owens Corning reduce our environmental impacts, especially those related to waste. In 2019, Ismo began running a program called Closing the Loop, which is working to identify waste streams and eliminate waste to landfill by 2030. Through his work, Ismo has come to understand the many benefits of maintaining a focus on sustainability, and he shares those insights here.

On what drives Owens Corning to focus on waste management

Firstly, of course, we want to be a good citizen. Secondly, our shareholders want to see that we are a sustainable company, and there is a growing market demand for increased recycled content in our products. There are, for instance, some building companies in Scandinavia that demand that we have, say, 15% of recycled content in our products. There are other aspects to consider as well — productivity gains and gross margin gains not being the smallest ones. When we started stepping up our sustainability journey more than ten years ago, we thought we have to do this, but it’s going to cost a lot. And quite soon after I started this project, I realized that we had the potential to also achieve savings. It’s a win-win — we can reduce waste remarkably, and we can gain some productivity savings and gross margin benefits.

On the Closing the Loop program in Europe

In the program we focus on increasing waste recycling at our factories. We define the needs and the technological solutions. We identify first what waste streams we have at the factories, and we focus firstly on the bigger ones. Secondly, we work with the different factories to identify additional waste streams. I’m currently working with our stone wool factories in Finland, Poland, and Sweden to create technical solutions that will further increase our waste recycling and then put them into place. This is very high on Owens Corning’s agenda, and I feel I get all the support I need.

On the steps needed to effectively manage waste

Recycling is very important. Within our stone wool business in the EU, we have challenged ourselves to ensure that no production waste leaves our plants by 2030. Beyond that, we also focus on a step-by-step expansion of our opportunities to receive customer waste, as well as waste materials from other industries. Since stone wool can be remelted repeatedly, we are also thinking about how to close the loop and recycle our products at the end of their life. I feel privileged that I can work on this kind of an engineering issue. This is very close to my heart.

“I feel privileged that I can work on this valuable engineering issue. It’s very close to my heart. This is a dream job for me.”

Photo courtesy of Ismo Kuokkanen.
Waste Management Performance

Owens Corning uses waste intensity to measure our performance toward our 2030 waste management goals. We continue to evaluate and improve upon the methods and mechanisms used to track how waste streams are recycled, reused, or landfilled. When available, we use invoices from waste management or recycling companies in our data reporting; otherwise, we rely on on-site weight scales. In the absence of scales, we use calculated estimates to determine the weights of our shipments. We assess our performance based on the final disposition of each material.

**2022 Nonhazardous Waste by Disposal Method**
(Metric Tons)

- Waste-to-Landfill: 353,413
- Recycled Internally (on-site): 281,437
- Recycled Externally (off-site): 188,642
- Recycled Internally with External Processing: 51,095
- Recultivation: 8,162
- Incinerated with Energy Recovery: 5,115
- Treated and Recycled: 2,326
- Incinerated without Energy Recovery: 823
- Controlled Confinement*: 139
- Composting: 25
- Return to Supplier: 3

**2022 Hazardous Waste by Disposal Method**
(Metric Tons)

- Waste-to-Landfill: 2,571
- Recycled Internally (on-site): 1,018
- Incinerated with Energy Recovery: 643
- Recycled Externally (off-site): 253
- Treated and Recycled: 176
- Incinerate without Energy Recovery: 171
- Controlled Confinement*: 161
- Recultivation: 4

* Owens Corning considers Controlled Confinement as Waste-to-Landfill for reporting purposes.
Total Waste Generation and Disposal

Owens Corning separates waste into hazardous and nonhazardous categories. The majority of waste generated in our facilities is either diverted or sent to landfill. Depending on the type of waste, we use such diversion methods as commercial composting, incineration with energy recovery, and returning waste to the supplier.

In 2022, we generated 896,178 metric tons of waste, compared to 891,175 metric tons in 2021. The overwhelming majority, 891,180 metric tons, was nonhazardous waste.

2022 Waste Diversion by Disposal Method

- Recycled Internally (on-site) 53%
- Recycled Externally (off-site) 35%
- Recycled Internally with External Processing 10%
- Recultivation 2%
- Treated and Recycled <1%
- Composting <1%
- Return to Supplier <1%

Waste Diversion 2018-2022

Our overall waste diversion rate for 2022 was 59%, compared to 61% in 2021 and 60% in 2018.

GOAL: 100% REPURPOSED OR RECYCLED

- 2018 Baseline 60%
- 2019 62%
- 2020 63%
- 2021 61%
- 2022 59%
THE IMPORTANCE OF CLOSING THE LOOP ON WASTE

As more of our sites around the world achieve zero WTL, we will be even better positioned to achieve our greater ambition — one that represents a more sustainable model for corporations everywhere. By combining waste reduction efforts with advances in how we source, process, and use materials, we can transform the way we operate and fulfill our mission of building a more sustainable future.

In addition to waste management improvements, this transformation requires us to forge meaningful collaborations, internally among our businesses and departments and throughout our entire value chain. In the next section, we will discuss the implications that these efforts will have as we support the transformation to a circular economy.

Photo submitted by:
Paul Funnell | Yorkville, Illinois, U.S.
For too long, the dominant paradigm in manufacturing was a linear model — extract raw materials from the earth, make products, and discard them when they were no longer needed. This model was clearly not sustainable in any sense of the word, and we have seen the results everywhere, as natural resources are depleted, pollution is increasing, and landfills are overflowing.

That’s why we have made the circular economy model a guiding force in our sustainability journey.

A circular economy is one in which virgin raw materials, waste, energy, and emissions are minimized through intelligent design, renewable and recyclable input, energy-efficient production, and enabling recycling at the end of product’s life cycles.

To build a true circular economy model, we must:
- Reduce the use of virgin raw material in the manufacturing of our products
- Reduce waste, energy consumption, and emissions
- Promote end-of-life solutions that keep products in the economy indefinitely

To achieve this level of circularity, we must:
- Develop intelligent ways to design our products
- Manufacture products using renewable and recyclable input
- Implement ways to keep them in the economy once they can no longer be used for their original purpose

By bringing this level of innovation to everything we do at Owens Corning, we are confident that the circular economy is within our reach.

In addition, the transition to a circular economy model also requires that we engage our suppliers in our efforts. Across our value chain, we work with a wide range of companies that supply materials, provide transportation throughout the manufacturing process, and use our products. We recognize the need to encourage suppliers to share our commitment to recycled input materials, transportation companies to work toward energy efficiency, and customers to join in finding end-of-life solutions for products.

LEARN MORE
- Circular Economy >
- Supply Chain Sustainability >
Owens Corning’s mission is to build a more sustainable future through material innovation, and as such, we have made the circular economy model a guiding force on our sustainability journey.

We believe that a sustainable future means reducing virgin raw material use, waste, energy consumption, and emissions, as well as promoting end-of-life solutions that keep material extracted from our products from our products in the economy indefinitely. To achieve this level of circularity, we must constantly seek innovative ways to design, manufacture, and develop end-of-life solutions for our products. We bring this mindset to everything we do at Owens Corning, and in this chapter, we discuss what we have already accomplished and what we are doing to achieve our goals.
By 2030, we will develop viable circular economy business models involving our materials and how they are used. We will accomplish this by:

- **Increasing recycled content** and decreasing virgin raw materials used in our products.
- Developing technical solutions and practical business models for our products and packaging so they can be used for beneficial purposes even after they are no longer used for their original purpose.
- Collaborating up and down the supply chain with customers, suppliers, communities, academics, policymakers, government entities, and other organizations to drive improvements.

### 2030 Goals for the Circular Economy

![Circular Economy Diagram]

**CIRCULAR ECONOMY**

- **Transportation**
- **Materials**
- **Owens Corning Manufacturing**
- **Use and Consume**
- **End of Life**

### Driving the Circular Economy Through Dedicated Leadership

Our work to establish circular economy models in our operations is driven by our circular economy team, which is led by our chief sustainability officer (CSO). The purpose of the team is to define goals and prioritize projects that accelerate our circular economy ambitions. The team consolidates and builds on the work we’ve done over the past few decades and serves as a hub for thought leadership, expertise, and shared learnings.

To execute our plans, the team also partners with subject matter experts and functional teams across our company, as well as other key stakeholders in the industry. This structure creates shared accountability for meeting our goals. Our pursuit of a circular economy model is not a “sustainability team initiative,” but a challenge, opportunity, and goal shared by all businesses and functions in all regions.

### Integrating Circularity Throughout Our Operations

#### Increasing Recycled Content

Owens Corning relies on a wide range of materials to manufacture our products. Sourcing them sustainably — increasing our use of recycled materials and decreasing our use of virgin raw materials — is essential as we work to reduce our impact on the environment and close the loop on waste.

At every stage in the manufacturing process, we look for ways to contribute to the circular economy model — reducing virgin raw materials, recycling waste streams, and creating end-of-life solutions.

The demand for products with recycled content among our customers is already strong, and we expect it will continue to grow. Our ability to meet customer expectations regarding product content — with full transparency — will be a key advantage as demand increases, and we will rely on the companies with which we do business to help develop strategies that will limit the extraction of virgin raw materials across our operations.
Product Circularity and Recycled Content

Using recycled content throughout our manufacturing operations reduces waste and saves resources. It also helps our customers comply with green building program requirements and achieve their own sustainability goals. Our commitment to using recycled content in our building materials is demonstrated through a multipronged approach:

- We seek to include or increase the content of recycled materials in our products and packaging, either in initial design or through continuous improvement.
- We validate recycled content use through third-party verification bodies and offer documentation for use in green building programs such as LEED®.
- We promote the attributes of recycled content and educate customers and consumers on the value this brings in reducing landfill waste as well as saving resources and energy.
- We promote our products and operations, including the benefits of recycled content and reducing impact over our products’ life cycles for all industries we serve.

Although most of the materials used in our processes are derived as raw input materials, we continue to look for opportunities to procure renewable sources, from raw materials to semi-finished goods and packaging. We are also focused on increasing our use of recycled packaging.

Glass Recycling

Using crushed post-consumer glass — also known as cullet — as a raw material decreases community landfill waste. It also lowers our energy use associated with manufacturing insulation since starting with raw materials such as sand requires more energy. The Glass Packaging Institute (GPI) reports that energy costs drop by about 2-3% for each additional 10% of cullet used in manufacturing.

While we strive for higher recycled-glass content in our insulation products, the supply of recycled glass is at risk, even as demand is rising. According to the U.S. Environmental Protection Agency, only 31.3% of all glass containers were recycled in 2018 (the last year for which data have been published). In addition, many U.S. municipalities have removed glass from their curbside recycling programs, further threatening cullet supply.

To help counteract these trends, Owens Corning works with other companies and organizations to support the glass recycling industry and the glass recycling supply chain as a whole. The Glass Recycling Coalition (GRC) and the North American Insulation Manufacturers Association (NAIMA) are two of our key partners, and in conjunction with these groups, we are focused on promoting glass recycling in several regions throughout the U.S.

We also worked with NAIMA to form a glass cullet task force with the following objectives:

- Improve communication on end-use of glass containers used to make fiberglass
- Increase glass container recycling rates
- Improve glass cullet quality
- Protect current recycling programs at the state and local levels

Owens Corning participates in several educational and informational workshops, including those conducted by the Closed Loop Fund and recycled glass processor Strategic Materials, to promote open dialogue and collaboration among stakeholders interested in glass recycling.

As we work to reduce our impact on the environment, we continue to seek to increase our use of post-consumer bottle glass in North America despite ongoing recycling challenges in a number of communities across the U.S. We believe the availability of high-quality recyclable glass is critical to the ongoing execution of our environmental ambitions and our overall growth strategy. Our primary focus is on promoting glass recycling at the state and local level, as shipping recycled glass is expensive and can negate the energy and emissions benefits. Therefore, we support a range of glass recycling efforts that should lead to more glass being recycled and with less contamination.
Recycled Content in Insulation Products

Owens Corning is a leader in using recycled content in our fiberglass insulation, ranging from a minimum of 53% recycled content in our U.S.-made products to a high of 73% recycled content in our Canadian-made products. In addition, SCS Global Services has certified that our North American residential fiberglass insulation contains at least 55% recycled content, and our commercial and industrial fiberglass insulation is certified to have a minimum of 53% recycled content.

In 2022, Owens Corning consumed more than one billion pounds of recycled glass globally, making us one of the largest users of recycled glass. Our XPS foam insulation in North America is certified as containing 20% pre-consumer content, and our Thermafiber® mineral wool insulation contains a minimum of 70% recycled content, which is validated by the International Code Council Evaluation Service (ICC-ES).

<table>
<thead>
<tr>
<th>2022 Recycled Input Materials (Metric Tons)</th>
<th>2018</th>
<th>2019</th>
<th>2020</th>
<th>2021</th>
<th>2022</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total weight of material</td>
<td>7,695,265</td>
<td>8,208,112</td>
<td>6,812,476</td>
<td>8,416,366</td>
<td>9,131,607</td>
</tr>
<tr>
<td>Total weight of recycled input materials</td>
<td>804,389</td>
<td>722,650</td>
<td>708,905</td>
<td>840,253</td>
<td>841,660</td>
</tr>
<tr>
<td>Percent of recycled content</td>
<td>10%</td>
<td>9%</td>
<td>10%</td>
<td>10%</td>
<td>9%</td>
</tr>
</tbody>
</table>

Minimizing the Impact of Transportation

We recognize the need to source materials and serve customers in ways that minimize transport and its impacts. This requires a great deal of collaboration between our people and our partners throughout our value chain. We call upon our suppliers to help us in the transition to the circular economy model.

We are integrating a range of transportation strategies into our operations with an eye toward reflecting this more sustainable way of sourcing materials. These include local sourcing initiatives, such as those in which cullet is sourced near our plant locations. More information about these initiatives can be found in the Supply Chain Sustainability chapter.

Our transportation sustainability strategies help us reduce our Scope 3 greenhouse gas (GHG) emissions — the indirect emissions that come from our supply chain. We work to ensure that materials are moved throughout our value chain as efficiently as possible using the optimal sourcing and logistical solutions. Learn more about Scope 3 emissions and our efforts to reduce them beginning on page 63 of this report.

Improving Circularity in Our Manufacturing

One of the main focuses of our circular economy efforts involves meeting our 2030 waste management goals — reducing the waste intensity generated by our processes and finding ways to reuse or recycle the rest — as well as our efforts to expand the use of recycled materials in our manufacturing operations and products across all our businesses. These efforts are highlighted in more detail in the Waste Management chapter.

We seek to manufacture products in ways that reduce the amount of waste generated while mitigating any potential negative environmental impacts. To that end, product innovation is essential, as it enables the development of products that are sustainably made and deliver positive impacts for our customers.
Ensuring Responsible Use and Consumption

Sustainability is built into Owens Corning products, from insulation that saves energy and roofing products that help protect homes to composites that make products lighter and more durable. The following represent some of the innovative ways that our products are helping build a more sustainable future around the world through the transition to the circular economy model.

Wind Turbine Blades

Wind power remains a central component of the world’s renewable energy strategy, and Owens Corning is proud to produce glass used in the reinforced composite materials that make wind turbine blades and nacelles. To fulfill wind power’s potential, we recognize the need to develop end-of-life solutions for these blades. Left unaddressed, there could be as much as 2.2 million metric tons of high-volume wind blade waste in landfills by 2050 in the U.S. alone.

We are collaborating with industry partners to develop processes to cut and section wind blades, strip them of their metal, and shred them. We are also working with startup companies to conduct controlled pyrolysis processes for successful recovery of energy and glass fiber. In addition, efforts are underway to pelletize pyrolysis processes for use as a potential molding material for new wind blades. The pellets can also be used as a molding material for a variety of applications, including use in packaging, decking, and railroad tie manufacturing. Executing these initiatives economically at the scale required to fully divert blades from the landfill remains a challenge.

Owens Corning is also a partner in the ZEBRA (Zero wastE Blade ReseArch) project in Europe, a cross-sector consortium launched in 2020 to develop the first 100% recyclable wind turbine blade. In 2022, the project achieved a milestone with production of the first prototype blade, with our wind science and technology team developing new high-performance glass compatible with the resin. As a material engineering partner, we also delivered a test matrix to support blade design and produced and delivered 25 tons of fabrics. Full-scale structural lifetime testing and validation have begun in Denmark. The next milestones are the recycling of production waste, the dismantling and recycling of this first blade, and the analysis of the test results, with a second blade expected to be produced in 2023.

In 2022, Owens Corning joined the SusWIND project, a consortium of companies launched in 2021 to facilitate recyclability in the manufacturing of composite wind turbine blades through the development of technology, processes, and materials. By joining SusWIND, we have new opportunities for collaboration, as well as access to a wealth of key material science research that will facilitate circularity in turbine blade manufacturing.

Protective Packaging

Single-use plastics are a major polluter of the environment. In addition to being nonbiodegradable, they are too often disposed of without thought to where they will accumulate. Without taking the proper steps to collect, process, and ultimately reuse or recycle plastics — including packaging — their buildup and ultimate degradation in landfills and oceans threaten both the environment and human health. To address this critical problem, nations around the world are working toward the elimination of single-use plastics. The European Union is leading this effort through new regulations, effective in 2025, to drastically reduce plastic pollution and establish circular economies. Our team in Europe has contracted with a legal firm to offer guidance regarding the regulation of packaging recycling both throughout the continent and within individual countries. In April of 2022, the UK also implemented a Plastic Packaging Tax for products that do not contain a minimum of 30% recycled content.

Owens Corning is a global producer of woven plastic packaging used to wrap lumber, steel, and engineered wood products. We are currently working to reduce plastic waste by recycling our own manufacturing scrap, which is reprocessed and fed back into our standard production processes. Furthermore, the roofing components product development team has made significant progress in establishing partnerships with European recyclers to help launch a closed-loop recycling for our WeatherPro® lumber wrap.

Our WeatherPro® coated wovens lumber wrap — available in Europe — meets requirements set forth by the UK, who in 2022 implemented the Plastic Packaging Tax on products that do not contain a minimum of 30% recycled content.
Other Sustainable Packaging Initiatives

Owens Corning uses wood pallets for shipping product, which are reused throughout our plants, with the majority being recycled at the end of their service life. Recyclable cardboard is used to package some of our products. Additionally, each carton used for our insulation products contains up to 23% recycled content and is fully recyclable after use. Cores used in our Composites business are also made from recycled paper, and totes, bags, and super sacks are designed to be reused.

In Europe, Owens Corning has established the Reusable Pallet Program, in which customers set aside their Owens Corning pallets to be picked up by a third party where possible. We make any necessary repairs and keep the pallets in use for as long as possible.

OPTIMIZING STRETCH FILM USE IN OUR PACKAGING

As Owens Corning works to create efficiencies across our operations, one recent initiative has implications that extend to our customers as well.

Over the years, there have been a number of advancements in stretch film, which Owens Corning uses in the packaging of many of our insulation and composites products. These advancements have resulted in greater film elasticity and strength while delivering greater containment force even as less film is used. By taking advantage of these advancements, we can use considerably less stretch film in packaging our products. While this provides considerable cost savings, it also means that our customers will send less waste to landfill as they use our products.

According to Doug Compton, the senior R&D engineer spearheading this initiative, the strategic use of high-performance stretch film offers a number of benefits. “This has enabled us to maintain load stability with approximately 40% less film used per load as well as increase throughput and reduce cycle time. Ultimately, we hope to cut the amount of film used per load in half,” he said. “We’ve also seen a reduction in the number of film breaks during packaging, so we have to stop the line less frequently.”

This initiative has been implemented at our insulation facility in Fairburn, Georgia, U.S., and there is potential for an expansion into our facility in Newark, Ohio, U.S., as well as our Composites plants. To ensure that we achieve our environmental aspirations, we have leveraged technology that provides easy to read at-a-glance dashboards of our stretch film usage, as well as minute-by-minute data. By closely monitoring usage, the technology provides us with the information needed to maintain our efficiencies over time.

Our R&D team is also looking into other ways to recycle flexible plastic poly packaging, an effort that will require a great deal of collaborative effort, but which will ultimately go a long way toward fulfilling our goals in advancing a more circular economy.
Developing End-of-Life Solutions for Products and Materials

To fully close the loop on the circular economy model, we must ensure that our product materials and packaging can be used for beneficial purposes at the end of their life cycle — and ideally, remain in the economy indefinitely. Diverting waste is pivotal for reducing our impact on the environment and enables us to meet changing environmental imperatives around the world.

In Europe, for example, end-of-life solutions are already the subject of a strong legislative drive, and Owens Corning is working to meet and anticipate increasingly stringent regulations. Finding applications and external companies that accept some of our byproducts is a challenge, so we are seeking solutions that minimize waste at every step. This often involves taking materials back into our own operations or repurposing materials for alternate uses. Through it all, our goal is to ensure that materials are not disposed into landfills, and this often requires open collaboration with other companies throughout our value chain.

The following initiatives are central to our end-of-life endeavors:

**Take-Back Models**

One essential component of the circular economy involves the establishment of take-back models, in which manufacturers collect used materials or products from customers. For Owens Corning, this may include waste generated during construction, subsequent fabrication, or installation, as well as protective packaging. The following take-back models are examples of our commitment to the circular economy.

**Paroc Rewool Program**

Owens Corning Paroc, our European mineral wool business, has a long-standing commitment in utilizing take-back models, dating back to 1996 (before the company was acquired by Owens Corning). Owens Corning Paroc’s predecessor organization developed the Rewool program, a customer take-back system, for its mineral wool. Through the program, leftovers from trimming stone wool insulation during installation, which would have once gone to a landfill, are now collected and recycled for future use.

This take-back model has required technological innovation throughout the process, from when and how the material is collected in bags, containers, or compressed bales, through revised considerations in how material is stored, pretreated, and handled as part of the final recycling procedure. In developing this process, the team worked to ensure that it was safe, easy to work with, and efficient. For example, in one business model, stone wool cut-off is pretreated by grinding it, then it is fed directly back into new products, eliminating processes that would involve additional resources, such as remelting.

In recent years, Owens Corning Paroc’s take-back model has continued to improve, and we are expanding it by entering into agreements with partners for support in collection and logistics to increase efficiency and flexibility in our model. The model was expanded into Finland in 2020, where customer waste from installation is processed and recycled into blowing wool. Our recycling partner reported that about 200 metric tons of the material recycled (mainly stone wool and a small amount of glass wool) were attributable to Paroc.

We are working with our customers to tailor the model to suit the specific needs of respective building sites, including those striving to achieve zero waste to landfill. In October 2021, our Swedish takeback model was expanded, enabling us to recycle offcuts from customers in Norway. In this arrangement, byproduct is transported from Norway via a third-party waste handling company to one of our facilities in Sweden where it is recycled. This ongoing project shows a great deal of promise for the circular economy. It will also serve as a learning pilot for implementation in our other markets.

**Coated Woven Packaging Take-Back Program**

Owens Corning has established a closed loop for the coated woven packaging used by one of our customers in the Nordic countries in which we are able to collect material back from both our customer and its customers. Once we process the material, we can reintroduce it into the production of our packaging.
Overview Operationalizing Sustainability

Building a Circular Economy Model

Leading Throughout the World

Innovating for Decarbonization & Sustainability

Reinforcing Our Foundation

Living Our Values

Appendices

Metals Packaging Take-Back Program

In addition to these efforts, we have developed a take-back model for our metals packaging products. To realize our objectives, we worked with a large steel company to replace the nonrecyclable plastic-coated paper it had been using with nitrite-free VCI metals packaging that uses corrosion inhibitors to protect its steel coils in transit and allow for safe recycling. Through this model, the customer uses the product to its end-of-life stage. We coordinate with partnering companies to collect and reprocess the material so it can be reintroduced into our products to create a comprehensive closed-loop system.

FOAMULAR® Take-Back

Our program in Gresham, Oregon, U.S. began in 2020, when a customer reached out to our team seeking a recycling solution for the significant amount of clean XPS material that was being thrown away in their manufacturing process. While we have been regrinding internal waste for years, we had no official partnerships with customers to take back material. Since this customer was local to the facility and had a clean waste stream, the Gresham team decided to trial a take-back program.

Following the initial success of the trial program, an official take-back partnership was established in October 2022. The material is transported between the two facilities by a logistics company in regularly scheduled loads. The Gresham plant then grinds the waste material and introduces it into our manufacturing process. Having established the feasibility of the take-back model, the FOAMULAR® team is looking into ways to help other customers with similar waste problems in the future.

Shingle Recycling

Each year, typically 12 to 13 million U.S. tons of shingle waste is generated. Less than 10% of that is manufacturing waste, and the remaining balance consists of shingles removed at the end of their life. Over the years, Owens Corning has taken varied approaches to address this issue.

In 2022, Owens Corning announced an important step in our shingle recycling efforts. We have launched workstreams focused on two methods of shingle recycling, aimed at reclaiming 100% of the shingle to eliminate product waste.

- **Recycling used shingles into new shingles.** Working with our external partners, we are piloting proprietary, patented processes to deconstruct post-consumer and post-industrial shingles, enabling the extraction and reuse of the shingles’ individual component raw materials. As part of this pilot program, these raw materials will be transported to Owens Corning manufacturing facilities, where they will be tested in the production of new shingles made with recycled content. We believe this approach will result in a higher percentage of recycled content used in new shingles.

- **Recycling shingles into asphalt pavement.** We are leveraging our expertise in asphalt innovation to increase the use of recycled asphalt shingles in the paving market. By working closely with paving contractors, our scientists and engineers have provided technical guidance for incorporating recycled shingles in an asphalt mix design that meets federal and state paving performance requirements. Through this work, we have diverted approximately 40 million pounds of used shingles from landfill.

By 2030, Owens Corning intends to recycle two million tons of shingles per year in the U.S. alone.
We are also working with the market sectors into which these products would go, including the roofing solutions, industrial asphalt, and specialty paving industries. The use of recycled shingle material, specifically reclaimed asphalt pavements (RAP), represents one of the largest examples of the circular economy in action across the U.S. today. According to the National Asphalt Paving Association, more than 85 million tons of recycled content are included in new pavement mixes each year. Our Specialty Paving business is a critical participant in encouraging this movement through its work developing unique binders that allow for increased use of RAP concentrations in asphalt pavement mixes.

**Roofing Contractor Incentive Program**

Owens Corning has established a roofing contractor incentive program for recycling asphalt shingle roof tear-offs. Through a national strategic alliance with Earth911, we connect contractors with convenient recycling facilities. As part of the program, we ask contractors to help the environment and promote sustainable business practices by pledging to recycle their shingle tear-offs.

As of 2022, 665 contractors in our network have pledged to recycle their shingle tear-offs, including 132 new contractors who made the pledge this year. While increasing the number of contractors in our network who recycle shingles is one of our priorities, market forces continue to present obstacles. In the U.S., the volume of shingles that are recycled continues to decline every year due to factors such as recycling centers closing or discontinuing their shingle recycling operation, restrictions from Departments of Transportation on the use of recycled asphalt shingles (RAS) in hotmix asphalt paving, existing stockpiles of material, and difficulties getting asphalt companies to take the material.

**Advocating for Shingle Recycling**

To help promote recycling among roofing contractors, our Roofing business has created a campaign designed to highlight the benefits of recycling, including increased customer demand for sustainable products, especially as younger generations enter into homeownership, as well as ensuring compliance with regulations and limits on allowable volumes of building waste sent to landfills. To support contractors in this campaign, we have developed a range of marketing materials, including flyers, yard signs, and door hangers, which they can use to differentiate themselves from the competition and demonstrate their commitment to sustainability.

We are addressing waste through our work with industry organizations and regulatory agencies. Owens Corning has a leadership role with the Asphalt Roofing Manufacturers Association (ARMA) with respect to the Asphalt Roofing Recycling Committee and the Asphalt Institute Foundation (AIF) research area. We also work directly with the Construction and Demolition Recycling Association, as well as CalRecycle, an organization within the California Environmental Protection Agency, to share best practices and collaborate on programs that promote the development of sustainable practices at the intersection of industry and state policy.
Additional Recycling Initiatives

Owens Corning participates in a number of initiatives that focus on diverting manufacturing waste by repurposing the material for alternate applications. This enables us to extend the life of the materials.

Recycling Dragline Shot

Our insulation plant in Wabash, Indiana, U.S., sends byproduct to 10X Engineered Materials. This recycling facility is designed specifically to process dragline shot, a unique process-waste stream, which is then used as an abrasive blast material by a range of businesses such as railcar companies, factories, and equipment coaters, as well as the U.S. Navy. In recent years, 10X Engineered Materials increased its capacities and now processes 70% of the dragline shot from our Wabash facility.

Recycling Fiberglass Scrap

We work with Re'tek Engineering Solutions, located in Elkhart, Indiana, U.S., to divert core and runback waste from our Composites plant in Amarillo, Texas, U.S. Re'tek Engineering Solutions is able to process fiberglass scrap into insulation, which is used at oil refineries. Over 1,800 U.S. tons of waste have been diverted to date. In 2023, Re'tek Engineering Solutions will be starting up a new line, and we expect to see an increased demand for product as a result.

Upcycling Nonwoven Waste Material

Owens Corning has established a pilot program at our facility in Apeldoorn, Netherlands, which aims to address the challenge of implementing the circular economy model by developing cost-effective ways to upcycle nonwoven waste material. The project team involved has been working with a thermoplastic compounder who is making compound from our waste mat fibers and recycled polymer.

In 2021, the project achieved an important milestone as the team performed the first-ever successful compounding and injection of 100% post-industrial recycled flakes. After testing different grinding technologies for making these glass flakes, we upgraded the compounding line at our Science & Technology Center in Chambéry, France, for testing these materials and defining a comprehensive value proposition. One promising avenue is in thermoplastic compounding and injection molding, in which nonwoven byproducts are repurposed to make components for use in automotive, appliance, and electrical applications.

By diverting waste, the project also has the potential to deliver significant savings in landfill costs. Looking ahead, the team is working to leverage additional external partners and identify new thermoplastic applications. In addition, they are gauging the extent to which the project can be expanded beyond the Apeldoorn facility’s nonwoven waste and into other nonwoven or glass fiber byproducts. These options may include thermoset resins, cement-based formulations, and wood- and paper-based products. We are also partnering with Paroc to leverage this waste material as a source of recycled content for mineral wool products.

Photo courtesy 10X Engineered Materials.
**SPEAKING OF SUSTAINABILITY**

**Courtney Rice**
Senior Engineer, Asphalt Innovation

While pursuing her undergraduate degree in civil engineering, Courtney Rice became interested in asphalt paving and pavement performance, and she’s worked in the asphalt industry for 12 years. The last six years have been spent at Owens Corning, working in the specialty paving business and with our circular economy team. Courtney chose Owens Corning because of our work in paving and our efforts to create a circular economy model for our roofing shingles. Courtney is eager to share her perspectives about the innovations and collaborations that are helping to advance Owens Corning’s circular economy ambitions.

"Asphalt is 100% reusable and recycled at a higher rate than any other material in America. I think that’s an awesome story to tell."

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On what it takes to develop a circular economy

With our 2030 sustainability goals, Owens Corning has set a bold and ambitious goal to drive the bottom line on the circular economy. We’re aligning the right people and the technical experience to really understand how recycled materials incorporate into pavement designs and how to take the asphalt itself from a recycled shingle. We’re also working on how that will impact recycling down the line in our environment. We’ve aligned ourselves with industry leaders to have a positive influence on this initiative. I think having that intentional focus and the right people in place can bring about change within the company and the world. Innovation is key across the board and especially within the asphalt industry. It’s a huge push right now.

On Owens Corning’s accomplishments in specialty paving

In the last few years, we’ve successfully diverted nearly 20,000 tons of shingle waste from landfill — just in our small specialty paving group. With this initiative, we’ve reused both post-consumer and manufactured single waste into paving. There are also innovative technologies that have come onto the market that have the potential to drive product innovation. There’s a way to incorporate recycled asphalt shingles at the appropriate percentage to get a sustainable pavement that lasts just as long as a road without recycled materials. We partnered with some of our key customers in two different markets. Those customers are looking to incorporate more recycled materials, so we were able to tailor an asphalt that allowed them to do so.

On the emphasis on sustainability throughout our industry

You can’t go to an industry meeting without somebody talking about sustainability and how important it is, not just for recycled shingles into paving. Third parties are creating chemistries that we can use in paving, which will allow us to recycle more. Recently, the Asphalt Roofing Manufacturers Association started putting roofing manufacturers and asphalt industry leaders together and working toward a common goal. And I think that, by extension, leads to some conversations to where there are key stakeholders at the table making decisions that will help push these sustainability goals. It gives me hope that we’re going to see the pendulum swing — because we have to do this for ourselves and for our environment.

Asphalt is 100% reusable and recycled at a higher rate than any other material in America. I think that’s an awesome story to tell.

Courtney Rice
Senior Engineer, Asphalt Innovation

Photo courtesy of Courtney Rice.
Our ambitions and strategies for advancing the circular economy model are in place, along with an organizational structure that is dedicated to helping us achieve our goals. Across Owens Corning — from major initiatives to a wide range of smaller efforts throughout our organization — we are working diligently to have viable circular economy business models in place by 2030. Our endeavors in this area will also place us on the path to meeting many of our other sustainability goals, such as those pertaining to waste management and decarbonization. By relying less on virgin raw materials, we are avoiding the GHG emissions associated with mining, processing, and transportation; by seeking out more end-of-life opportunities, we are sending less waste to the landfill. Our work in this area demonstrates that our sustainability efforts are intertwined in many ways, yet they all steer in one direction — in which our people and our products make the world a better place.

Photo submitted by:
Michaela Havířová | Klášterec, Czech Republic
Our paper fibre machine helps reduce the consumption of plastic airbags, which are used to fill product boxes.
SUPPLY CHAIN SUSTAINABILITY

In this chapter:

- 2030 GOALS FOR SUPPLY CHAIN SUSTAINABILITY
- SUPPLIER SELECTION: A COMMITMENT TO SUSTAINABILITY
- ONBOARDING NEW SUPPLIERS
- MANAGING SUPPLIERS AND MITIGATING RISK
- CONTINUOUS IMPROVEMENT TOWARD SUPPLY CHAIN SUSTAINABILITY

Owens Corning did not become an industry leader on our own. We rely on a network of thousands of companies around the world, each of which fulfills a key function. We are committed to sustainability in all its forms, and we recognize the importance of prioritizing suppliers that share this commitment. Our policies and procedures help ensure we select optimal suppliers and manage our partnerships responsibly.

Owens Corning uses a variety of materials, including minerals, chemicals, energy, and packaging to manufacture our range of products. Our global manufacturing facilities perform processes that convert raw material inputs into finished products (or, in the case of composites, finished input materials to be used by another business). With operations in 31 countries, we manage inbound and outbound freight transport via truck, ship, rail, and occasionally air.

Most of our supply spend goes toward material suppliers, with the next-greatest share going to transportation companies. In addition, we work with distributors and service suppliers to procure our capital goods, machinery, and myriad technical, consultative, and management services.

Our total base of suppliers consists of more than 17,000 organizations, with which we spend approximately $6.5 billion annually. We have active management processes in place to evaluate, segment, and engage with all top-spend suppliers. Through our segmentation process, 562 vendors comprise 75% of our sourcing managed spend. We determine appropriate action items related to each supplier based on the supplier’s specific profile, as described in the Management of Suppliers and Risk section later in this chapter.

The social data in this chapter marked with a + sign were independently assured to a moderate level by SCS Global Services. For more information on the assurance process see About the Report, and for our verification statement please see Appendix F.
The Supplier Code of Conduct outlines the expectations we have set to ensure that suppliers share our commitment to sustainability. The standards defined in the Supplier Code of Conduct are consistent with the principles established by the United Nations Global Compact (UNGC).

Our Supplier Code of Conduct states that suppliers are expected to:

- Fully comply with all applicable legislation, regulations, and legal requirements related to human rights, environmental concerns, anti-corruption, and trade and customs.
- Provide effective management systems for environment, health, and safety (EHS) and product stewardship programs.
- Provide products that are safe and environmentally sound during their use and disposal.
- Have programs to reduce the environmental impact of their products, including reducing discharge and other sources of pollution into natural surroundings.
- Establish goals and monitor the reduction of their environmental footprint.
- Have employment standards and practices that include fostering diversity, providing suitable working conditions and compensation, and forbidding forced and child labor.

This Code is explicitly consistent with our human rights policy and includes, for example, expectations related to human trafficking and the sourcing of conflict minerals.

In all areas, Owens Corning expects suppliers to comply with country-specific or local legislation, the international norms explicitly referenced in the Code, or Owens Corning-specific standards — whichever standard sets the highest expectations. Owens Corning has a human rights policy in accordance with the UNGC, and our expectations on human rights are outlined in the Safeguarding Human Rights chapter.

We have a number of opportunities to determine a supplier’s compliance with the Code. The Supplier Code of Conduct is provided to all new suppliers during the onboarding process, and it is included in all base contracts. In addition, the Code is included in the supplier assessments that are provided to segmented critical suppliers, as well as in our annual sustainability survey.

Progress toward this goal is calculated each year through a sampling of suppliers, using our supplier sustainability survey. Over the past three years, 267 suppliers from around the world participated in this survey. Further results from the survey can be found on page 128.
As we discuss in the Combating Climate Change chapter, we have a 2030 goal to reduce absolute Scope 3 emissions — indirect greenhouse gas emissions such as those from our supply chain — by 30%.* Our suppliers will play an active role in helping achieve this goal. More information about our progress toward this goal can be found beginning on page 62.

* A standardized training process has been implemented across all global sourcing positions, and this will be used to facilitate category strategies going forward. In 2022, training was conducted, either in-person or online, with 100% of global sourcing members.

The sustainability training provides a baseline understanding and knowledge of sustainability concepts that are relevant for our sourcing professionals, including the Supplier Code of Conduct and Owens Corning’s overall sustainability goals. In addition, the training covers more general concepts such as the circular economy, decarbonization, and ESG topics. The training video has been automated using a screen recording platform, and training completion is tracked through our intranet site.

Our intranet site provides global sourcing members with the latest information on shared suppliers, such as evaluations, sustainability surveys, segmentation, and risk mitigation plans. Housing all informational materials in one location helps category leaders more easily complete supplier performance reports, supplier segmentation, and more.
SUPPLIER SELECTION: A COMMITMENT TO SUSTAINABILITY

We use a range of policies and procedures to inform the decisions we make in selecting and retaining the companies with which we do business. These allow us to identify those companies whose priorities most closely align with our own.

Prioritizing Suppliers Using ESG Scoring

Our approach to prioritizing suppliers empowers us to emphasize the importance of sustainability throughout our value chain by enabling us to consider environmental, social, and governance (ESG) risk exposures. We have developed an ESG risk scoring framework based on S&P Global Rating’s ESG Risk Atlas.

In this approach, we assign a sector risk score based on the commodity that the company supplies to Owens Corning. This score encompasses associated environmental and social risk rationales. In addition, a regional risk score, embodying governance rationales, is assigned to a supplier’s country. These scores are then tallied to determine an overall ESG risk score. For suppliers that provide multiple commodities to Owens Corning, and therefore have multiple ESG risk scores, we select the highest of their risk scores to ensure a more conservative representation of these suppliers.

Local Sourcing

In addition to ESG risk exposures and the standards detailed in the Supplier Code of Conduct, supplier selection depends on many other considerations, including costs, quality performance, delivery performance, innovation, and financial viability. Supplier location is also a consideration. With local suppliers, engagement and transportation of materials can be more efficient, which in turn leads to greater sustainability across the supply chain. In addition, local sourcing leads to fewer miles driven, which cuts down on transport cost, road congestion, and emissions. While we do not have a specific policy in place for local procurement, we define “local” to be within a 250-mile radius of any of our facilities, and we track this information for all of our U.S. facilities.

In 2022, 32% of Owens Corning’s purchases were made locally for significant locations within our operations. Some products, such as cullet (recycled glass), are sourced near plant locations as a matter of course. Additionally, many of our facilities have rail delivery capability. While the sourcing locations often fall outside the 250-mile radius for local procurement when using rail delivery, this transportation method still provides cost and environmental benefits compared with truck transport.

Diverse Supplier Program

Owens Corning’s Diverse Supplier Program creates strong business partnerships, strengthens economic development in the communities where we serve, and supports the viability of diverse businesses across all aspects of our supply chain. As we build relationships with businesses owned by minorities, women, veterans, the disabled, service-disabled veterans, LGBTQ+ people, and people from historically underutilized business zones (HUBZone), we can help foster an inclusive culture.

We have established a Diverse Sourcing Champion network to expedite diverse sourcing education and identify diverse spending opportunities. We have also developed internal tracking and reporting capabilities to measure progress. In addition, we have implemented useful tools for benchmarking, market research, and execution of inclusive sourcing practices in all businesses and categories, as well as communication tools for diverse suppliers.

2022 Share of Supplier Count by Country

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<th>COUNTRY</th>
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<tr>
<td>USA</td>
<td>33.8%</td>
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<td>China</td>
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<td>India</td>
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<td>TOTAL</td>
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ONBOARDING NEW SUPPLIERS

Supplier Validation Process

New suppliers of Owens Corning undergo an intensive validation process. The process is as follows:

- Suppliers must be assigned a vendor number before they are entered in our supplier database, and suppliers receive the Owens Corning Supplier Code of Conduct.
  - The Code is referenced during the request for proposal, contract creation, on-site evaluation, and self-evaluation.
  - Owens Corning maintains the right to take actions to ensure that the Code is being followed by suppliers. These actions can include inspections of the supplier’s facilities and worker accommodations, as well as review of any applicable documentation. Suppliers are expected to keep accurate records to prove compliance with the Code.
  - Owens Corning expects suppliers to take corrective actions to remedy any identified noncompliance within a time frame jointly agreed upon by the supplier and Owens Corning.
- During the assignment process, each vendor is screened for any global or governmental sanctions.
  - We use the Refinitiv World-Check system, a database established by Thomson Reuters to assess, manage, and remediate potential risks associated with individuals and organizations.
  - Information is collated from an extensive network of reputable sources, including:
    - More than 530 regulatory, law enforcement, sanction, and watch lists
    - Local and international government records
    - Country-specific data sources
    - International adverse electronic and physical media searches
    - English and foreign-language data sources
    - Relevant industry sources
- The supplier is reviewed through internal controls and security to determine whether they will have access to any Owens Corning databases or technology.
  - If yes, the Owens Corning cybersecurity group investigates and must approve the supplier before a vendor number is assigned.
- Companies that are considered key suppliers in the manufacture of a product — including raw materials, capital, and facilities — may be subject to a self-assessment, an on-site survey, or both.
  - The following resources assist us in researching new and current suppliers:
    - Dunn & Bradstreet Credit Reports
    - Lexis Nexis
    - Market Research Reports
    - Reference USA
- As needed, we also have a process in which we work with our treasury team to reach suppliers that are not publicly held.
  - This provides us with a financial risk score, assisting us in our selection process.
- In 2022, over 2,900 new suppliers were onboarded and 100% were evaluated for these issues as well as environmental and social criteria such as human rights and labor practices.

Acquisitions and Supply Chain Sustainability

Bolt-on acquisitions are part of Owens Corning’s strategy for growth. With acquisitions come new suppliers, many of which are significant and many of which are based outside the U.S. Whenever we consider acquiring another company, we exercise due diligence to evaluate supply chain risk. It is important that the target company’s current suppliers are high-quality, capable, safe, and able to meet our standards.

Soon after a transaction is completed, we engage with each acquired business to set expectations and implement a consistent structure for supplier relationships. We provide extensive training to ensure that the acquired business understands our Supplier Code of Conduct and how to administer it. In addition, our commodity leaders spend time getting to know the acquired company’s key suppliers, explaining the Supplier Code of Conduct, following up on issues of concern, and, if necessary, identifying alternative potential suppliers.

In 2022, Owens Corning acquired or entered into joint ventures, which are included in our sustainability reporting operational control, with four companies: WearDeck, Pultron, Natural Polymers, and Fiberteq. While these companies are undergoing the processes associated with acquisition, their data does not factor into this year’s overall supply chain performance figures.
MANAGING SUPPLIERS AND MITIGATING RISK

Owens Corning takes a holistic approach to managing suppliers and risk. We also include supply chain resilience considerations in our assessments, which refers to our suppliers’ ability to manage disruptions with relatively minor impacts on the supply chain.

Identifying and Mitigating Risk

Owens Corning uses several methods to identify risk in our supply base, including ESG risk scoring, segmentation, the risk mitigation tool, supplier performance measurement, category strategies, on-site or self-evaluations, and sustainability evaluations. In addition, risk can be introduced by our suppliers through nonconforming material or work while on-site at our facilities. Our contractor management standard requires that all contract employees working at Owens Corning sites meet certain standards before proceeding with any work. Each contractor that performs medium- and high-risk work activity must submit appropriate documentation and achieve an acceptable grade by our external partner, ISN, prior to being awarded any jobs. Examples of documentation include a Certificate of Insurance, copies of specific safety programs, OSHA forms, and questionnaire responses pertaining to its EHS and sustainability programs. Owens Corning and the individual contractor pay for membership with ISN, and the cost to the contractor is based on its number of employees.

In our plants, we have a process to record and track nonconforming material from suppliers. This process was updated in 2022, enabling plant personnel to upload photos of nonconforming materials directly from their phones. Suspect or rejected material is segregated, which drives further investigation by Owens Corning and the supplier into any material that may be in stock or en route. We also use an 8D process, an industry-standard corrective action that requires the supplier to respond with a detailed description of the problem, an immediate containment plan, short-term action, a root cause analysis, long-term corrective action, an implementation plan, a prevention plan, and an implementation evaluation. We observe this process for any corrective action that is requested.

We use various subscriptions and memberships to assist in our risk assessment of suppliers, market conditions, and the competitive landscape while making sourcing decisions. We have memberships with Procurement Leaders, Gartner, and Manufacturers Alliance for Productivity & Innovation, as well as resources related to chemical, oil, and more. Each sourcing professional is trained in gathering category and market intelligence using a range of tools, including Strengths, Weaknesses, Opportunities, and Threats (SWOT) analysis; Political, Economic, Socio-Cultural, and Technological (PEST) analysis, and Porter’s Five Forces Framework.

Supplier Segmentation

Owens Corning seeks to develop a complete understanding of every company in our supply chain, including the various ways these companies could affect our operations. To achieve this, our global sourcing team uses our segmentation tool to assess and classify primary suppliers. Suppliers included in the segmentation process meet the following requirements:

- Constitute ~75% of overall global sourcing managed
- Are single- or sole-source suppliers
- Have a high-risk ESG score and a spend of more than $250,000

Our supplier segmentation tool compiles an overall score using the following criteria:

- Three questions related to risk that are weighted based on their importance to Owens Corning
- Four questions related to impact that are weighted based on their importance to Owens Corning
- The supplier’s ESG score

The assessment we have developed reflects our emphasis on risk mitigation, our need to address single- and sole-source suppliers, and our emphasis on developing strategies in each commodity category. Each supplier is assigned scores based on two categories: risk and impact.

- **Risk.** The risk score captures potential for instability in our ability to purchase a given product or material. Higher risk scores may be the result of one or more of the following reasons:
  - There is only one supplier for a material or product
  - There would be significant cost associated with switching suppliers
  - The supplier is subject to greater instability or disruptions
  - The supplier may not have publicly stated sustainability or safety measures

- **Impact.** The impact score reflects the ways that a supplier’s situation can affect Owens Corning’s bottom line. High-impact suppliers are generally those who:
  - Offer innovative products
  - Offer significant cost and/or productivity savings
  - Deliver a competitive advantage for us
  - Serve as a necessary part of Owens Corning’s business operations
Once the scores have been assigned, the suppliers are placed into one of four categories. Using this classification, we are able to establish action plans that ensure our relationship with each supplier is optimized, increase the overall impact on our business, and mitigate our risk.

The classification is also used to identify relationship owners; action items; and supplier, commodity, and/or business strategies. The segmentation tool has been updated and improved over the years, with the latest update taking place in 2021, when we streamlined the segmentation of suppliers and the questions asked to assess them to facilitate more comprehensive intelligence.

We have segmented the top 562 suppliers based on their impact and risk to our business. In 2022, approximately 22% of our segmented suppliers were identified as critical suppliers (high risk/high impact) and approximately 38% were identified as bottleneck suppliers (high risk/low impact). Both segments are key focus areas in our supply chain responsibility efforts. Supplier segment categories and our specific action plans related to these groups are outlined in the following chart.

### Characteristics of Different Supplier Segments and Action Plans

<table>
<thead>
<tr>
<th>Supplier Category</th>
<th>Impact</th>
<th>Risk</th>
<th>Relationship Owner</th>
<th>Action Plans</th>
</tr>
</thead>
<tbody>
<tr>
<td>Collaborative Supplier</td>
<td>Low Risk/High Impact</td>
<td></td>
<td>Commodity leader, with multiple levels of involvement — including executive involvement</td>
<td>Ensure contract/supply agreement, Document and confirm contingency plan, Administer annual supplier performance management, Search for partnership in R&amp;D and retain long-term relationship</td>
</tr>
<tr>
<td>Critical Supplier</td>
<td>High Risk/High Impact</td>
<td></td>
<td>Sourcing/business leaders, with multiple levels of involvement — including executive involvement</td>
<td>Ensure contract/supply agreement, Complete risk assessment, then document and confirm contingency plan with upper management, Create communication plan with upper management, Administer biannual supplier performance management process, Search for partnership in R&amp;D and form long-term relationship</td>
</tr>
<tr>
<td>Transactional Supplier</td>
<td>Low Risk/Low Impact</td>
<td></td>
<td>Relationship managed by local sourcing personnel</td>
<td>Leverage competition, Outsource, Automate, Consolidate spend, reduce vendors, and increase impact, Leave supplier in “noncritical” category</td>
</tr>
<tr>
<td>Bottleneck Supplier</td>
<td>High Risk/Low Impact</td>
<td></td>
<td>Commodity leader</td>
<td>Restrict future business until risk is mitigated, Ensure contract, Complete risk assessment, then document and confirm contingency plan, Administer biannual supplier performance management process, Prepare exit plan/dual source</td>
</tr>
</tbody>
</table>

TRANSACTIONAL SUPPLIER ACTION PLAN
- Leverage competition
- Outsource
- Automate
- Consolidate spend, reduce vendors, and increase impact
- Leave supplier in “noncritical” category

BOTTLENECK SUPPLIER ACTION PLAN
- Restrict future business until risk is mitigated
- Ensure contract
- Complete risk assessment, then document and confirm contingency plan
- Administer biannual supplier performance management process
- Prepare exit plan/dual source

These companies are highly significant for Owens Corning, and they often represent a high percentage of our overall spend and/or high-volume bulk purchasing. They often offer low-complexity items, and Owens Corning has purchasing power in these transactions. There are often multiple available suppliers that can be transferred at a reasonable cost.

In addition to the risk factors discussed on page 126, bottleneck suppliers deliver lower levels of profitability and are in the low- or medium-spend category. The products they supply may also be technically complex and/or may represent a limited source or a niche market.
Risk Mitigation/Contingency Planning

Our detailed risk mitigation tool focuses on all critical suppliers along with all single- and sole-source suppliers. The tool considers the following variables:

- Risk identification
- Risk assessment
- Maturity assessment
- Risk score and segmentation
- Prioritization
- Documented contingency planning, where required

Categories of risk assessed among suppliers include human risk, information and legal risk, quality risk, reputational risk, and operational risk.

Each identified risk is considered among a series of scoring matrices within the tool, with the final deliverable being a risk tolerance chart showing “impact” and “likelihood” of the risk. This drives the documented contingency and testing process for the highest priority risks. Contingency plans can be completed on a supplier, category, or business basis and can vary by need. For example, these documented plans can be used for needs such as backup transportation, raw material procurement, temporary employment, or a request for production data to ensure that a supplier’s process is consistently running quality material.

The risk mitigation tool was used in all category strategies in 2022 to create contingency plans and identify our highest risk areas — a required component in our category reviews.

Reducing Risk from Single-Source Suppliers

While raw materials usually come from more than one supplier, Owens Corning has some single-source supplier relationships that provide unique, value-added product and service capabilities. Such companies fall into the critical supplier category in our supplier segmentation tool, and they are subject to close monitoring, engagement, and collaboration with the sourcing team.

Our sourcing team maintains a regular schedule of safety, environmental, sustainability, and quality audits of single-source suppliers. In addition, we work with these companies to address any gaps in their risk analysis and contingency plans. On an as-needed basis, Owens Corning meets in person or virtually with leaders of single-source companies to review and update all pertinent information.
Global Sourcing Category Reviews

As part of our continuing efforts to reduce risk and ensure the integrity of our supply chain, in 2022 Owens Corning continued to evolve the Global Sourcing Category Reviews. These reviews, which are conducted by our sourcing leadership team, help assess all facets of our global sourcing strategy. Going forward, we will target covering 100% of sourcing categories through review. Sourcing leaders and their teams provide a comprehensive overview of category performance to leadership and business partners, allowing for visibility, alignment, and strategic input. This review is an opportunity for each category owner to offer perspectives on market dynamics that affect inflation and deflation, risks and concerns, key projects, value creation initiatives, and other relevant topics. Through the category review process in 2022, Owens Corning began reviews, with a specific focus on the 562 suppliers that were a part of our annual segmentation process. In 2022, the cadence of these reviews switched from biannually to annually, allowing leaders to present a global perspective in the most time-efficient manner possible.

Developed in keeping with our supplier and category management strategy, the agenda for these reviews may include evaluations of category profile, industry analysis, supplier segmentation, supplier performance measurement, risk mitigation/contingency plans, value creation, and strategy plans and success measures, as well as supplier diversity and supplier sustainability assessments, among other key topics. This review process includes our most collaborative and critical suppliers.

EXECUTIVE SUMMARY & CATEGORY OVERVIEW
Overview on key topics, spend, dynamics, and vision for category. This is a four-box category summary which will also be used in any Contract Review Board (CRB) meetings.

SUPPLIER CONNECTION
Creating outcome driven results through mutual value-added, innovation-driven, and value-creation relationships with our suppliers by sharing data, ideas, and scorecard metrics. This covers supplier strategy and will be also used in any CRB meetings.

RISK MITIGATION
Mitigation of supply constraints and risk to deliver materials and services at the right time, to the right place, and in the right quantity.

VALUE CREATION & INNOVATION
Business partnership and driving results through “buy better and spend better.” Collaborating with our science and technology partners and our suppliers to drive innovation in all categories. Driving long-term value through long-range planning.

SUSTAINABILITY
Partner with the sustainability team to define the roadmap to achieve our Scope 3 target by 2030. Continue advancing Owens Corning’s renewable energy and circular economy goals.

SUPPLIER DIVERSITY
Establish a robust supplier management framework to measure supplier performance on quality, supply, and innovation as well as operationalize and make meaningful improvement in our Diverse Supplier Program.

Supplier Evaluation
Owens Corning sourcing and supply chain professionals, as needed, evaluate existing and potential suppliers using either on-site evaluations or supplier self-assessments. Both evaluations include questions about the Owens Corning Supplier Code of Conduct, which includes our expected standards on a range of social criteria, including discrimination, child labor, forced labor, human trafficking, the right to collective bargaining, and the right to freedom of association, as well as safety and environmental policies.

This process also evaluates the supplier’s treatment of contracted labor, women, and children. In 2022, over 25 on-site evaluations or self-assessments were conducted. In India, the Owens Corning sourcing team also has a supplier quality engineer (SQE) whose role involves auditing supplier operations, specifically looking for aspects such as product quality and safety in the supplier’s workplace.
Digital Tools for Supplier Management

Beginning in 2022, the global sourcing organization began the process of upgrading our digital tools to broaden our capabilities in supplier management, supplier risk management, and supplier performance measurement. The Supply Chain and Sourcing digital roadmap outlines end-to-end solutions to help Owens Corning streamline sourcing and procurement business practices. In addition to benefiting Owens Corning, this will provide a contemporary platform for supplier interactions and supplier risk management. Connecting upstream sourcing processes to downstream procurement processes will improve our ability to buy from the right suppliers at the right price.

Supplier Sustainability Assessment

Another tool used in measuring supplier risk is our supplier sustainability assessment, which is a survey mapped to respective ESG risk categories. Specific topic areas addressed within the survey include codes of conduct for both Owens Corning and the supplier, sustainability policies and goals, environmental management system usage, health and safety policies and goals, labor policies and practices, and raw material evaluations.

We began distributing our annual supplier sustainability assessments in 2014. Over the years, we have continued to refine our approach in identifying and prioritizing key suppliers to engage in the supplier sustainability assessment. In 2022, criteria for inclusion included suppliers with a high-risk ESG rating as well as all strategic, single- and sole-source, and critical suppliers. This strategic approach ensures that we are focusing our efforts on better understanding the most impactful and critical suppliers in our network. When training buyers or professionals responsible for making decisions regarding the selection of suppliers or the awarding of business, the information gained from the sustainability assessment is always an important element in the final decision.

As part of our due diligence, Owens Corning also uses these assessments to identify and gauge impacts and risks as they relate to our suppliers’ commitments to human rights. Suppliers are asked whether they have policies in place regarding human trafficking, forced labor, child labor, and anti-discrimination. In addition, we ask suppliers whether they employ migrant workers in their operations.

We survey a selection of suppliers to gauge the effectiveness of their own sustainability efforts. Owens Corning uses the survey data to accomplish the following:

- Learn how companies perform, including areas where they are strong and where additional support may be required.
- Highlight areas that need additional attention and follow-up. For example, questions that a company does not answer are treated as a negative response, which triggers direct engagement.
- Identify best practices and leading companies that should be considered for an Owens Corning supplier award.

Of the suppliers we have surveyed over the past three years, we have received 267 responses, with an overall response rate of 40%. Of the suppliers that responded over this period:

- 96% of suppliers surveyed reported that they meet the standards set by our Supplier Code of Conduct. Those that could not say that they comply are listed as high risk, and follow-up management is in place. This percentage also includes manual research into suppliers’ codes of conduct. Owens Corning also surveys suppliers about their policies and goals related to sustainability and safety.
- 86% of suppliers surveyed have organizational goals and policies for safety, and 80% of suppliers surveyed have organizational goals and policies related to sustainability. Many of the companies report on their goals and policies internally and externally, and some publish their data at least annually.
- 79% of suppliers surveyed have policies in place regarding labor practices and human rights.
- 65% of suppliers surveyed have policies in place that prohibit forced or child labor.
- 35% of respondent supplier operations are covered by a certified ISO 14001 or EMAS environmental management system.
Contract Review Board

In 2022, Owens Corning established a contract review board that convenes quarterly to review new and expiring contracts. These meetings offer an opportunity to discuss contract negotiations and provide leadership with a better line of sight on our contract processes.

The contract review board is primarily focused on contracts of $10 million per year or more, and those requiring a letter of authorization signature of vice president or above. The number of contracts reviewed varies from quarter to quarter, as we review new and expiring contracts to determine which one should come before the board.

Corrective Actions

Owens Corning uses an industry-standard process when corrective actions need to be taken with our suppliers. This process includes the following:

- Short-term action and containment plan
- Root-cause analysis
- Identification and verification of long-term corrective actions
- Implementation of long-term corrective action
- Final verification and signoff by stakeholders

We typically deliver our written request for corrective action during supplier assessments and upon receipt of nonconforming material. We may also ask suppliers to provide additional inspection data with a shipment, showing actual measurements for critical characteristics, as well as signoffs from management at supplier locations.

Supplier Summit and Awards

Each year, Owens Corning celebrates our global suppliers with a two-day supplier summit and awards program, which includes a business meeting and a fundraiser for the Owens Corning Foundation.

As part of the 2022 summit, and as we advance our Key Supplier Management agenda, we held a facilitated learning session focused on digital, sustainability, and value creation topics. This meeting created a new venue to engage and listen to our suppliers.

Suppliers were invited to presentations that included business updates by our corporate leaders and open panel discussions. During the business meeting, suppliers learned about Owens Corning’s 2030 sustainability goals, including our inclusion and diversity goals, and how these pertain to our suppliers. Our chief sustainability officer hosted a discussion, which engaged and educated suppliers around key sustainability action items involving our supply chain, such as our work to transition to a circular economy model and how suppliers relate to our company’s 30% Scope 3 absolute emissions reduction goal. Key Supplier Management will be a focus in our sourcing agenda for 2023, leading to accelerated sustainability impact and results.
**SPEAKING OF SUSTAINABILITY**

**Zac Graffice**  
Warehouse Leader

Owens Corning has warehouses around the world, and they represent a significant part of our operations. For Zac Graffice, they are also an opportunity to deliver on our commitment to supply chain sustainability. In his role overseeing our global warehousing network, Zac has been part of a number of initiatives that are helping reduce our Scope 3 GHG emissions in cost-effective ways. In addition to the warehouse facility consolidation described below, Zac is working with one of our partners to convert our warehouses’ forklifts from propane to electric.

"Owens Corning is pushing every single department and every division to become better in sustainability."

**On the importance of consolidating warehouses**

When we consolidate facilities, we try to move them closer to the plants to reduce the amount of mileage on the road. A really good example of that is in our Heath facility that services Newark. In the past, our warehouse was about 13 miles from the plant. We’ve moved to a brand-new, build-to-suit facility that’s only six and a half miles from the plant, which reduced the total carbon emissions that we’re putting on the road. We’re also looking at future consolidations, and we think that there are probably three or four significant opportunities to reduce by, in some cases, 15 to 25 miles per shuttle run. We always need outside warehousing, so it’s our job to try to position those as close to the plants as possible.

**On how Owens Corning operationalizes sustainability**

We’ve taken it on as part of our DNA. It’s not something that we just talk about — we actually go after things. We go after it in our plants, in the office, and at the headquarters. I think if you don’t have that in your DNA, if you don’t put efforts in and put leaders in positions to really drive it, then it kind of falls apart and people don’t focus on it. All the work and effort and leadership behind sustainability at Owens Corning makes it a big part of everything that we do. It also comes back on us a little bit to make sure that we’re partnering with companies that share our values. We’re choosing who we do business with, so how do we make them better? I think everything helps, and everything matters.

**On making a business case for sustainability**

Ten years ago, to be more sustainable meant to be more costly. I think we’ve found out that in a lot of cases, it’s not more costly — it’s cost-neutral. It’s not a big increase in your cost, and it’s actually reduction in many cases, especially with diesel prices doing what they’re doing today. We need to go after those initiatives, and now’s the time. We don’t see a settling in the fuel industry, we don’t see a settling in propane costs. So right now it’s a win-win. You’re helping the environment, you’re trying to become carbon neutral, and at the same time you’re lowering your costs.
CONTINUOUS IMPROVEMENT TOWARD SUPPLY CHAIN SUSTAINABILITY

We continue to train new employees in global sourcing and work to make improvements to our process to meet the needs of our organization. Each category leader is responsible for establishing category strategies based on the output of the segmentation tool, business objectives, market forecasts, and more. Strategies for achieving our objectives may include focusing on creating dual sources, risk mitigation, innovation, or cost-savings initiatives for the business.

We are continuously working to improve our processes, make our outreach to suppliers more robust, and increase engagement with those in our network. As part of these efforts, and in keeping with our digital transformation efforts, we have made enhancements to our intranet site (previously known as OC Sourcing Way) to provide our global sourcing members with even easier access to the latest information on shared suppliers such as evaluations, sustainability surveys, segmentation, and risk mitigation plans. By making these upgrades — and by building and maintaining strong partnerships with suppliers that share our commitment to sustainability — we can do more to expand the positive impacts of our products.
SECTION 3
LEADING THROUGHOUT THE WORLD

The world has changed dramatically since Owens Corning first embarked on our sustainability journey. While financial growth remains an imperative among many stakeholders, the demand for solutions that reduce the environmental impact of buildings and infrastructure has increased dramatically. Owens Corning is poised to meet that demand, with products that deliver sustainability advantages without compromising performance:

**INSULATION PRODUCTS**
- Improve safety and energy efficiency

**ROOFING PRODUCTS**
- Protect homes and, in many cases, reflect the sun’s rays

**COMPOSITES PRODUCTS**
- Make products lighter, stronger, and more durable

The increased demand for sustainable products is especially true in Europe, where regulations have become more stringent and companies across the continent have sought innovative ways to meet them. The European Green Deal, for example, has the potential to reframe expectations surrounding corporate citizenship for years to come. One of the key trends shaping our industry today is the expectation that companies reduce their greenhouse gas emissions and increase energy efficiency.

In addition to environmental concerns, social issues have become an increasingly mainstream aspect of corporate citizenship. A wide range of stakeholders have made it clear that a company’s growth should not occur at the expense of people’s quality of life.

Growth is essential. But growth that fails to consider — and mitigate — the potential negative impacts of a company’s actions is irresponsible.

Owens Corning is dedicated to aligning our growth to sustainable trends and positive global impact. In doing so, we can help ensure a better future for everyone who has a stake in our company and our planet.

Owens Corning posted more than $9.8 billion in sales in 2022 — compared to $8.5 billion in 2021 — while also striving to make improvements in our sustainability profile through our products and processes. We are demonstrating that business growth and corporate responsibility are far from incompatible. In fact, the case can be made that these decisions are often economically advantageous as well.

The growth we have experienced provides us with a solid foundation upon which to build upon our aspirations for sustainability.

We are working to ensure that our products are the most recognized and preferred for sustainability throughout our industry. Looking ahead to 2030, we will continue to design our products for recycling or reuse — optimizing their impact over their entire life cycle, from the extraction of raw materials to disposal.

Throughout this section, we will demonstrate how we are delivering truly sustainable growth through digital acceleration, strategic partnerships throughout our industry, and acquisitions that offer opportunities to increase the sustainability profile of our overall portfolio.

LEARN MORE

Sustainable Growth >
- Acquisitions & Joint Ventures >

Leadership & Advocacy in Our Industry >
- Digital Initiatives to Drive Growth >
This past year saw Owens Corning realize strong performance, as reflected in our year-over-year increases in revenue:

- 2020: $7.1 billion in sales
- 2021: $8.5 billion in sales
- 2022: $9.8 billion in sales

In 2022, our growth was augmented by a number of strategic acquisitions and joint ventures, which will further enable us to grow in ways that are in keeping with our mission, purpose, and values. At the same time, we have made great strides in our efforts to reduce our environmental footprint around the world, which aligns with our aspirations for sustainable growth.

Owens Corning is working to ensure that our products are the most recognized and preferred for sustainability throughout our industry. By 2030, we will design our products for recycling or reuse, optimizing their impact over their entire life cycle, from the extraction of raw materials to disposal.

We recognize that achieving our goals will require a great deal of collaboration with our stakeholders, as well as a keen understanding of the secular trends that are shaping business climates around the world.
Addressing Secular Trends in Our Industry

Owens Corning products meet a range of customer needs across global markets. These needs extend beyond excellent performance – increasingly, we are seeing an emphasis on sustainability and energy efficiency from our customers. Our portfolio of products and systems places us in a position to address these and other key secular trends. This includes those that are more industry-specific, such as modular building trends and the skilled labor shortage, as well as more generalized trends such as digital acceleration and customer and channel consolidation.

In addition, Owens Corning has identified several trends that represent further opportunities for sustainable growth over the next several years.

- **Increased premium on living spaces.** The global pandemic has changed how we think about our homes, both in terms of functionality and comfort. This new emphasis on cultivating inviting and useful living spaces will continue to drive investments in new residential housing and renovation in the U.S. and abroad. Specifically, insulation is one of the best ways to improve energy efficiency, which helps homeowners lower their heating and cooling bills. It also provides indoor comfort and improved sound reduction, helping make homes livable.

- **Demand for sustainable solutions.** Homeowners are increasingly prioritizing greenhouse gas reductions, improvements in energy efficiency, and the development of more renewable energy sources for their homes. Additionally, many governments are requiring increasingly stringent standards for sustainability. Both factors are driving new specifications throughout the industry. One example of the latter is the Energy Performance in Buildings Directive (EPBD), an important piece of legislation designed to help achieve the goals set forth in the EU Green Deal. The European Parliament proposed that by 2030, all new buildings in the European Union will be zero-emission buildings, with a 2027 deadline for new buildings occupied, operated, or owned by public authorities. In addition, they propose that all building stock be zero-emission by 2050. Another EU initiative, the Renovation Wave, aims to double annual energy renovation rates in the next 10 years.

- **Changing construction practices.** Even before the pandemic, we saw how labor shortages were impacting construction practices and cycles. Since early 2020, this trend has accelerated, creating the need for multi-material and prefabricated construction solutions that can drive efficiencies.

- **Investment in infrastructure.** We expect that upgrades to roads and bridges will continue to be prioritized around the world over the next decade. We also expect that these investments will call for more durable building solutions, which will increase their sustainability over time.
GROWTH DRIVEN BY SUSTAINABILITY

Owens Corning believes that as we grow, we must consider our role as a global corporate citizen. As a result, sustainable growth is one of the material topics that is guiding us as we seek to grow in ways that allow for both greater success and a better quality of life for people everywhere.

Driving sustainable growth begins with a thorough understanding of our key sustainability indicators and continues with how we implement them in ways that meet the needs of our stakeholders. In pursuit of these objectives, we intend to:

- Achieve operational sustainability by reducing our environmental footprint with feedback in alignment with feedback from global stakeholders
- Chart a clear course of action to drive product and supply chain sustainability through enhanced engagement and the promotion of product life cycle transparency
- Ensure positive community impact through local initiatives in the places we live and work, which is a key aspect of honoring our social responsibilities
- Collaborate with customers and those across our supply chain to develop innovative, sustainable composite materials and solutions that perform as well as, or better than, traditional materials
- Work closely with contractors to demonstrate the sustainability benefits of composite materials in publicly funded infrastructure projects
- Partner and collaborate with builders, contractors, architects, and homeowners to understand their needs and help them leverage leading-edge building science to adapt to better building products and systems
- Use science and technology to develop innovative building products and systems to improve durability, deliver energy efficiency, and provide comfort throughout buildings
- Share our building science expertise to educate the industry and governments
- Advocate for building code improvements and building standards
- Continue to prioritize our employees’ safety, health, and wellness

Opportunities in Infrastructure

Products From Our Coated Wovens Business

These include geosynthetic membranes to provide excellent solutions for water management, agriculture, and the protection of high-value raw materials. Our WeatherPro® lumber wrap, available in Europe, contains 30% recycled content, meeting requirements set forth by the UK in their Plastic Packaging Tax on products. Additionally, our roofing underlayment contains a minimum of 20% recycled content to facilitate more sustainable building practices.

Liner for Cured-in-Place Pipe (CIPP)

Repairing sewer lines has traditionally involved digging up roadways, leading to increased traffic, noise, dust, and other disturbances. Through the CIPP installation process, contractors insert a flexible thermoset resin liner into the damaged pipe, where it is then expanded using air pressure and cured using ultraviolet (UV) light. We supply the thermoset resin manufactured with specially designed continuous filament glass that enables seamless installation and performance of these liner systems.

CIPP delivers numerous sustainability advantages. By reducing the number of fleet vehicles required to complete a repair and avoiding stopped traffic on the roadways, CIPP reduces the amount of CO₂ emitted over the course of repairs. This process optimization also saves time and labor while reducing the risk of damage and accidents.

The market for CIPP continues to grow around the world, especially in the U.S., Asia Pacific, and Europe. Looking ahead, we expect this market to continue to expand as investments in infrastructure continue to grow.

Corrosion-Resistant Rebar

The American Society of Structural Engineers estimates that one in nine bridges in the U.S. is structurally deficient. In many cases, bridge failure is caused by corrosion of the steel rebar used in the supports and surfaces, which is why many states are looking at significant infrastructure projects to repair or replace some of these dated structures. However, these projects are often disruptive and costly.

In this context, longer-lasting bridges are better for the environment — and for the people who use and maintain them. Owens Corning’s fiberglass rebar offers a sustainable solution to meet these needs. The advantages of Owens Corning’s fiberglass rebar over traditional steel rebar are numerous — it lasts longer, it’s up to four times lighter, and it resists corrosion. We’ve worked with the U.S. Department of Transportation and several state agencies on specific bridge projects to demonstrate its benefits.

Composite rebar is also beneficial in situations where concrete is manufactured using saltwater, as it resists corrosion. By using saltwater, manufacturers are able to preserve the amount of quality fresh water available for human consumption.

FOAMULAR® EDGELOCK™ Insulation

This product is designed to insulate roads in areas where permafrost is vulnerable to melting, which is a practical factor in infrastructure projects in these regions. The unique design of EDGELOCK™ insulation allows installers to use one layer of insulation without sacrificing the thermal performance typically achieved through two layers of insulation. This results in faster installation, reduced labor hours, and less carbon emissions from equipment.
As part of our commitment to remaining responsive to the trends that are shaping our industry — and our responsibility to a better future — we have developed a long-term strategy designed to expand our market opportunities. In alignment with one of our key pillars of this strategy, we intend to strengthen our position in core building and construction product solutions. In 2022, we announced several important acquisitions and entered into joint ventures, all of which are in service to our long-range strategies for growth.

In June 2022, we announced our acquisition of WearDeck, a premium composite decking and structural lumber manufacturer based in Ocala, Florida, U.S. As a fast-growing business that will benefit from our resources and market access, WearDeck products are helping us pivot our Composites business to focus on high-value material solutions within the building and construction space. As a durable alternative to standard lumber, WearDeck products offer beneficial advantages for this important industry.

Another acquisition made in August 2022, Natural Polymers LLC, enables us to offer customers a more diversified insulation product portfolio with a wealth of long-term solutions. The company, based in Cortland, Illinois, U.S., manufactures spray polyurethane foam insulations for building and construction applications, and it offers innovative chemistry and a low-VOC (volatile organic compound) product. Natural Polymers spray foam products comply with UL GREENGUARD Certification standards.

The market for rebar in North America is expected to grow in the coming years, and while fiberglass rebar currently represents a small percentage of the market, there is great potential for expansion as demand grows for lighter, more durable, and sustainable rebar options. With this in mind, we have entered into a joint venture along with New Zealand-based Pultron known as Owens Corning Reinforcement Solutions LLC. This agreement also increases market access to PINKBAR®+ Fiberglas™ Rebar, which is used for flatwork and residential applications, and MATEENBAR™ Fiberglas™ Rebar, which is used for heavy-load structural applications.

Owens Corning also assumed full ownership of Fiberteq, a company that was formed as a joint venture between Owens Corning and IKO in 1999. Fiberteq produces high-quality wet-formed fiberglass mat (WFM) for roofing applications out of its facility in Danville, Illinois, U.S. We have invested in and grown our Nonwovens business over the last several years, and this has been a strategic emphasis for our Composites business, as well. We will also better serve our Roofing business and our external customers as we increase our North American capacity in WFM.

As we pursue the strategic priorities that we believe will lead us to even greater growth, we recognize that the work we are doing today reflects our guiding purpose — our people and our products make the world a better place.
LEADERSHIP AND ADVOCACY THROUGHOUT OUR INDUSTRY

Owens Corning’s advocacy objectives include supporting initiatives that align with our core values, especially as they relate to energy efficiency measures and contemporary building code development and adoption. Our efforts to promote sustainability across the industry can be seen in our education campaigns, code advocacy, attention to legislation and regulation related to wildfires, work with the insurance industry, and more.

As an example, over the past few years, attention has turned to the codes and standards that apply to the fire performance of products and wall systems. In response to wildfires on the West Coast of the U.S., as well as fires in Europe and the Middle East, we expect to see municipalities, and possibly state governments, adopt code requirements that drive the market toward noncombustible materials such as Thermafiber® mineral wool insulation. In addition, expansion of zero-energy code policies in places such as California would call for increased R-value per inch, which could further drive the market toward Thermafiber® insulation and our other higher R-value insulation products.

We also engage with policymakers, with our government affairs team overseeing our interactions and ensuring that our activities are aligned with our climate policy. We regularly review language and activities with both the external affairs and sustainability departments, and we conduct legal reviews of all external communications including letters, testimony, and activities with outside advocates or nongovernmental organizations (NGOs).

Partnerships With Industry Organizations

Our collaborations with the organizations active in our industry provide us with invaluable insights as we seek to improve our sustainability capabilities, and they offer opportunities to collectively advocate for our industry, which in turn helps promote growth. Owens Corning employees work with trade associations and research institutions, as well as the regulatory agencies that set specifications for the buildings and products where our materials are used. Our experts often participate as board and committee members in these organizations, providing leadership that incorporates our strong sustainability standards.

Some of our industry associations include:

■ North American Insulation Manufacturers Association (NAIMA). NAIMA is made up of companies that manufacture fiberglass, rock wool, and slag wool insulation. Its members produce the majority of the insulation products used in the United States, Canada, and Mexico. NAIMA is primarily focused on promoting energy efficiency and the preservation of the environment, as well as the safe production and use of its members’ products.

■ European Insulation Manufacturers Association (EURIMA). Owens Corning is a member of EURIMA, which represents the interests of all major mineral wool producers throughout Europe.

■ Asphalt Roofing Manufacturers Association (ARMA). Owens Corning employees hold leadership positions in ARMA, which represents both manufacturers and the companies that supply their raw materials. ARMA is dedicated to the advancement of the asphalt roofing industry through the collective expertise of its member companies. The organization is also a resource for building and code officials as well as regulatory agencies and allied trade groups. Our employees have leadership positions within this organization, including chairing the Asphalt Roofing Recycling Committee and Codes Steering Group, and we are members of their sustainability task force.

■ American Composites Manufacturers Association (ACMA). ACMA provides education, advocacy, and representation for its member companies and associated markets to promote growth within the composites industry. ACMA is committed to driving industry innovation, providing members with a range of educational tools and certification programs.

In 2022, ACMA kicked off their Climate Impacts Project to increase support to member companies in the area of life cycle assessment, including life cycle inventory, product category rules, and EPDs. Our employees are providing support and expertise to the project.

■ Employees are also active in the Asphalt Institute and Asphalt Institute Foundation, participate in the Asphalt Institute EPD (environmental product declarations) Task Force, and have leadership positions on both the Asphalt Recycling Task Force and the Asphalt Institute Roofing Technical Committee. Through their work, we are helping drive multiple sustainable approaches within the roofing industry.

■ For a full list of the organizations with which we work, see Appendix D.

Certified Energy Experts

We launched Owens Corning’s Certified Energy Expert® (CEE) program in 2012. To become a CEE, contractors must complete Owens Corning training on thermal performance, moisture prevention, air filtration, ventilation, and energy efficiency audits. CEEs have an advanced understanding of building science and have steadily grown sales of Owens Corning insulation. The expertise CEEs offer their customers makes them trusted partners throughout the building process, helping facilitate the construction of more sustainable buildings.

Owens Corning supports these contractors with local marketing materials that promote both the Owens Corning brand and that of the contractor, a visible sign of the importance of this collaboration.
We have also extended our limited lifetime warranty to include our CEEs’ workmanship in addition to our products. In 2022, program engagement rose — 89% of the members worked with Owens Corning on at least one project during the year.

There are currently 100 insulation contractors in this elite group. To remain in the CEE program, contractors must maintain above-market sales growth and Owens Corning market share of more than 60%. Members of the program operate with different business models and install different types of insulation, including new construction and renovation of single-family homes and light commercial buildings such as multifamily units.

Owens Corning Inaugural Green Bond

In 2019, Owens Corning issued its inaugural green bond, which was the first to be offered by an industrial company in the United States. The $450 million bond is payable over 10 years at a coupon rate of 3.95%. In conjunction with the bond, the company committed to spending $445 million on eligible green projects.

Green bonds represent a small but fast-growing segment of the overall bond market, as investors increasingly value corporate sustainability and responsibility as key considerations in their investment strategy. A green bond is a fixed income debt instrument with characteristics similar to a traditional bond, but with a green bond, the issuer promises to use the proceeds to finance or refinance new or existing sustainable projects.

The Green Bond Principles are voluntary guidelines established in 2014 and overseen by the International Capital Markets Association. Along with committing to use funds specifically for eligible projects, the issuer pledges to report on how it spends the allocated funds and the progress it makes on the initiatives outlined in connection with the bond. Owens Corning’s report on this inaugural green bond is available on our [website](#).


Our products also play an important role in the development of net-zero energy ready and passive house buildings, which are buildings that produce the same amount of, or more, energy as they consume. Buildings can be designed to be ultra-efficient, making them net-zero energy ready or better. When combined with the use of renewable energy, they can achieve net-zero energy status.

While we have not set a specific target relative to Passive House and net-zero energy ready houses and buildings as part of our 2030 goals, we work closely with organizations and contractors who are driving progress in this area.

Homes and buildings that meet Passive House standards are far superior to model energy codes, reach codes, decarbonization codes and policies, and branded programs (such as LEED®, Living Building, and WELL) with respect to energy savings and other attributes. The market penetration of Passive House is strong and growing in China, the EU, and Canada. While the U.S. currently lags in adoption of Passive House, the pipeline of projects is strong in Pennsylvania, New York, and Massachusetts due to progressive climate policies and attention to building decarbonization.

- We are a Gold Sponsor of the Canadian Home Builders’ Association’s (CHBA) Net-Zero Energy Housing Council, helping drive accelerated adoption of net-zero energy ready performance in new and existing houses, which will be mandated in 2030 as part of the Pan-Canadian Framework on Clean Growth and Climate Change.

- We are an active partner supporting a pilot project from the CHBA, Towards Cost-Effective Net-Zero Energy Ready Residential Renovations, which receives funding from Natural Resources Canada (NRCan). The project’s goal is to accelerate the deployment of very high-efficiency homes and buildings in Canada, and targets driving down costs and creating market confidence in net-zero energy ready retrofits.

- We are a sponsor and partner of EnerQuality, an organization that delivers a voluntary ENERGY STAR labeling program for high-performance new homes and multi-use residential buildings across Canada.

- We have participated in NRCan’s Local Energy Efficiency Partnership (LEEP) program, accelerating uptake of innovative building enclosure products and technologies in the new and retrofit housing sectors.

- In the U.S., we worked to encourage the improvement to the EPA’s ENERGY STAR Homes program and the Department of Energy’s Zero Energy Ready Homes program, which establishes the 2021 International Energy Conservation Code as the minimum baseline upon which additional energy savings are required. Both programs are referenced in the Inflation Reduction Act’s federal tax credit for new homes, providing $2,500 per home for ENERGY STAR and $5,000 per home for Zero Energy Ready, as well as incentives for certain multifamily buildings that meet these program requirements. The ENERGY STAR and Zero Energy Ready Homes programs are steppingstones to Passive House, which exceeds these programs with respect to energy savings.

- We are on the board of the Passive House Network, an education, training, and advocacy organization that promotes Passive House in state and local codes, policies for affordable housing, and tax and utility program incentives to drive uptake.

- We are supporting a tax credit for new homes that meet Passive House principles in Maryland, and advocate for Passive House as a recognized alternative compliance path in state and local codes and in reach codes that focus on building decarbonization.
SPEAKING OF SUSTAINABILITY

Naren Srinivasan
Vice President, Corporate Development

Although he has only been with Owens Corning since December 2022, Naren Srinivasan brings a wealth of expertise to the organization. Having worked previously in investment banking, Naren covered the building materials sector early in his career, and he has followed the trends that are shaping our industry today. Naren is committed to making sustainable practices part of his personal life, from recycling to composting. Even as a relatively new member of the Owens Corning team, Naren has a great deal to say about the importance of growing our business in responsible ways.

“When I was growing up, the view was, be careful how you use your belongings — that’s something that I instill in my children.”

On how our approach to acquisitions set us apart
Sustainability has an important seat at the table with respect to both what makes a good acquisition target as well as our due diligence process. Not only do we ask how an acquisition can expand our customer, product, or technology offerings, we ask how the acquisition can promote our sustainability goals or how we can improve the target company’s sustainability profile. I do believe that more companies globally are moving down this path. In comparison to my experiences prior to Owens Corning, the focus on sustainability as part of the M&A decision making process was limited, so for me this is an exciting and important path.

On the connections between business growth and sustainability
Within the construction sector, there are many different trends impacting building practices, whether it’s how people are thinking about urban living, the focus on infrastructure, or more recently, changing construction practices such as prefabrication related to labor issues. When I look at our growth ambitions and translate that to sustainable growth, it’s terrific to see how much they’re interlinked. As we think about new products, many are very much needed for the changing landscape in construction. At the same time, we look at how these products are in line with our sustainability goals. Several discussions on growth initiatives we have as a company and as teams are intertwined with sustainability.

On looking to Europe as an indicator for sustainability worldwide
Over the past 15 or 20 years, Europe has been a bit ahead in setting standards for sustainability, and we see that there in terms of what customers and consumers are looking for. Wearing my strategy hat, I’ve looked to Europe as a precursor to what’s going to follow in North America. As a result, we’ve seen investment and innovation coming from companies for novel materials and products, more sustainable roofing and insulation systems, or carbon/emission capture and recycling of materials. I think there’s been great innovation in Europe, and we’re also seeing that in the U.S. to provide additional durability or energy efficiency, which is fantastic.
The Building Science Solution Center

Owens Corning’s experts continually research and deploy building science solutions to serve architects, building owners, occupants, and the environment. The Owens Corning Building Science Solution Center is a 24/7 portal connecting architects to emerging research, best practices, and thought leadership across a spectrum of building disciplines.

In addition to delivering expertise related to sustainability, the Building Science Solution Center offers practical insights into the diverse challenges architects experience and provides access to certification documentation to meet building program requirements. The portal’s resources include content drawing on more than 40 years of experience pioneering perimeter fire containment assemblies, as well as information gained from WUFI® analysis, which helps architects predict moisture and thermal performance across a range of climates. Building science is promoted within the company through an internal team that engages industry partners, architects, engineers, and builders. Through lunch-and-learns, webinars, in-person and virtual seminars, workshops, and trade shows, our team helps drive the use of Owens Corning’s energy-saving products in more sustainable building applications, maximizing their performance and helping them achieve certifications such as LEED® (Leadership in Energy and Environmental Design).

Highly sustainable and energy-efficient solutions continue to be a focus of our product and system innovations, and through our industry collaborations, our cradle-to-grave evaluation of embodied carbon impacts will now be at the center of that innovation.

Our focus on successfully engaging high-impact architects, engineers, and construction customers in supporting builders is crucial. We believe this support structure can have a ripple effect on sustainable revenue as these professionals promote practices and specifications that bring awareness of Owens Corning® products to a broader network. For example, if a major architectural firm begins to specify an Owens Corning® insulation product, that approach may be shared with satellite locations as well, and the impact of the engagement will be magnified.

Our metrics track customers’ building science engagement, including the number of people reached and events held. In 2022, Owens Corning held more than 30 building science engagement events and reached over 18,000 architects, engineers, and builders.

Photo submitted by:
Cheryl Smith | Granville, Ohio, U.S.
Dawes Arboretum, Newark, Ohio, U.S.
DIGITAL INITIATIVES TO DRIVE GROWTH

Our market-facing growth initiatives include the use of digital marketing channels, engagement systems, and e-commerce tools. These digital tools and solutions drive awareness of our products, increase brand loyalty and advocacy, and support e-commerce momentum in our industry — while also helping our customers, contractors, and influencers grow their businesses.

Some of our key market-facing digital initiatives include:

**Distributors.** As we work to improve online communication with our distributors, we have developed a portal to offer order status, access to documents, and delivery tracking functionality.

**Contractors.** Our goal with contractors is to help them get more work — and get more work done. The OC Connect platform helps contractors access information and training while simultaneously earning rewards for their purchases, including cash back and promotional funds that can be applied to marketing materials, branded merchandise, and more.

**Architects and specifiers.** We are developing digital tools designed to provide accurate and comprehensive information about Owens Corning products, making them easy products to spec into projects and systems. These efforts are helping us continue to be a manufacturer of choice in the markets we serve.

**Homeowners.** Digital marketing strategies enable us to guide the homeowner through the entire purchasing journey, from their initial interest to the point where they act as an advocate for our products.
INNOVATION FOR DECARBONIZATION & SUSTAINABILITY

From the very beginning, Owens Corning has been a driving force for innovation. Our advancements have made:

Over the years, a new imperative has emerged. Human activity has led to increased temperatures around the world, and severe weather phenomena have been on the rise, from droughts and wildfires to storms and floods.

To help stem the devastation that is occurring as a result, the Intergovernmental Panel on Climate Change (IPCC) has issued recommendations aimed at limiting warming to 1.5° C. To make that happen, every nation, company, and individual must take decisive action today.

At the same time, stakeholders everywhere have made it clear that sustainable solutions are more important than ever. In addition, they expect companies making sustainability claims to act with transparency and deliver documentation that backs up their assertions.

As the stakes grow higher, our commitment to innovation must be stronger than ever. We seek to drive continual improvement in the sustainability of our products, in their creation, and in their ability to help the world meet its sustainability needs.

Earlier in this report, we presented the many ways we are operationalizing sustainability at our facilities. In this section, we will show how we focus on sustainability and decarbonization in the design and manufacturing of our products.

Today, we use the principles of product stewardship to ensure that our products are fundamentally safe and sustainable in their design, creation, and use, and on to their eventual end of life. We have found that there are real benefits to creating products sustainably — for the environment, our customers, and our business. As we look ahead, these principles will continue to serve as our guide as we endeavor to secure a better future for generations to come.
In this chapter:

- STRATEGIES FOR REDUCING EMBODIED CARBON
- A HOLISTIC APPROACH TO SUSTAINABLE INNOVATION

In the Combating Climate Change chapter of this report, we discussed the ways we are working to reduce greenhouse gas (GHG) emissions. In addition to operationalizing emissions reduction across our sites, we also work to reduce embodied carbon from our products. In the long term, we seek to eliminate it altogether. Embodied carbon refers to the total amount of GHGs associated with manufacturing products, from raw material extraction, transportation of those raw materials to manufacturing sites, and their ultimate processing, and can include its transportation to construction site, emissions during use, and disposal.

Decarbonization — the elimination of embodied carbon — requires us to consider the total impact of our products at every step of their life cycle, beginning at the design phase and continuing on to the end of their life. In order to achieve our decarbonization aspirations, we must increase the recycled content in our products, improve our supply chain logistics, and develop end-of-life solutions for materials.

An undertaking of this magnitude involves a tremendous amount of collaboration throughout our organization and across our value chain. Within Owens Corning, our people have demonstrated their passion for eliminating embodied carbon from our portfolio, and their drive and ingenuity are a constant source of inspiration. As regulations become increasingly stringent, especially in Europe, companies across our value chain are recognizing the importance of facilitating collaboration and partnering to drive meaningful progress toward reducing embodied carbon.

Every stage of a product’s life cycle represents an opportunity for decarbonization, and each step we take toward reducing embodied carbon brings us closer to achieving our ultimate ambition of full decarbonization.
STRATEGIES FOR REDUCING EMBODIED CARBON

Decarbonization in the Design Phase

We strive to reduce carbon from our products even before they are manufactured. Project teams can use the Ecodesign Strategy Wheel throughout the product development process, beginning in the early design phase, to ensure responsible production. This tool encourages users to reimagine design, choose materials wisely, and reduce products’ manufacturing impacts. By empowering designers to consider sustainability at every stage of the innovation process, we can identify ways to reduce our overall impact, including our GHG emissions. More information about the Ecodesign Strategy Wheel can be found on page 150.

Improving the Manufacturing Process

As described on page 151, we are working to improve our manufacturing processes through a range of strategies. Transitioning to 100% renewable electricity is a key strategy, and we are working to source the renewable energy needed to make that possible. Additionally, we seek to electrify more of our operations, magnifying the impact of our renewable electricity sourcing and reducing emissions from fossil fuel. More information about our renewable electricity strategies can be found on page 53.

In support of this strategy, we are working to transition to renewable electricity throughout our European operations. As we work to meet Europe’s increasingly stringent energy sourcing requirements, we are vetting various technologies that put us on the path to decarbonization.

We are actively working to shift away from the use of fossil fuels (natural gas) in our glass-melting furnaces used in both our Insulation and Composites divisions. Where possible, we are shifting to all-electric furnaces, with the electricity used being obtained from 100% renewable sources. Where process or technology constrains us from a complete shift, Owens Corning is targeting a hybrid approach that will use both electricity and greenhouse gas intensive fuel.

One example is an increase in electrical heating by modifying electrode count and locations (where the energy is input) and changing the way power is supplied throughout the glass melting furnace. Additionally, we are working to source 100% renewable electricity to power our European Insulation sites, as well as considering full electric options across all assets. Electrifying our processes using renewable sources and reducing our demand for combustion will enable us to improve efficiencies and reduce CO₂ emissions in our Composites and Insulation businesses. Beyond melting, we are investigating similar approaches for glass delivery, drying, and curing.

Where combustion is required, we are moving to more efficient fuel sources such as oxygen, and we are exploring hydrogen. Using hydrogen as an energy source offers an opportunity for decarbonization, as the combustion of hydrogen emits water rather than carbon dioxide. We seek to integrate technologies needed to realize hydrogen combustion in our manufacturing processes while ensuring product quality. Our work with the H2GLASS consortium, discussed further on page 146, will help us achieve our hydrogen aspirations.
Decarbonization and Owens Corning Products

Made With Renewable Electricity

A number of Owens Corning products, including some of our high-density insulation products and shingles, are certified as made with 100% renewable electricity. These products, which are part of our reduced embodied-carbon portfolio, are certified in accordance with SCS Global Services’ certification protocol. These certifications are made possible by power purchase agreements (PPAs) and virtual power purchase agreements (VPPAs), including those signed by Owens Corning in 2015, which enabled new wind capacity in Texas and Oklahoma. Owens Corning obtains and retires the energy attribute credits (EACs) generated by these wind farms, enabling us to receive third-party renewable electricity certification.

We currently have 14 products that are certified by SCS Global Services as made with 100% renewable electricity:

- EcoTouch® Flexible Duct Media Insulation
- Pink® Next Gen™ Fiberglas™ Insulation
- Unbonded Loosefill Insulation
- Thermafiber® Insulation
- Thermafiber® Formaldehyde-Free Insulation
- QuietR® Duct Board Insulation
- QuietR® Spiral Duct Liner
- FOAMULAR® NGX™ XPS Insulation
- Fiberglas™ 700 Series Insulation Board
- Fiberglas™ Insul-Quick® Insulation
- Ceiling Board
- Duration®, Oakridge®, and Supreme® 3-Tab shingles from our facility in California

These certified products, which make up 27% of our total revenues, provide commercial architects, specifiers, builders, and homeowners with lower-carbon product options as they seek to build more sustainable structures. They also help architects design buildings with reduced life cycle impacts in keeping with the recognized goals of the Architecture 2030 Challenge and U.S. Green Building Council's LEED® certification.

Across our insulation portfolio, we offer a range of products with a reduced carbon footprint. One notable example is PAROC® Natura insulation, a carbon-neutral line of stone wool insulation that uses low-carbon melting technology, renewable electricity, recycled waste materials, and purchased carbon offsets to minimize the amount of CO₂ emitted during the manufacturing process.

The blowing agent used to make FOAMULAR® NGX™ insulation is optimized to demonstrate greater than 80% reduction in the product's global warming potential (GWP) compared to legacy FOAMULAR® XPS insulation. It provides the same benefits — high R-value, superior moisture resistance, and up to 100 psi of compressive strength — but reduces the material’s carbon footprint. In developing this product, Owens Corning is addressing climate change in two ways — the product itself is more sustainable, and it can be used by individuals to reduce their own energy footprint.

We conduct Environmental Product Declarations (EPDs) on several of our products, offering a verified, third-party source for embodied carbon values. Learn more about EPDs on page 154.
Strategies for Reducing Embodied Carbon

Throughout our enterprise, we are taking active measures to reduce embodied carbon. In Europe, we have developed a road map to drive decarbonization in our composites manufacturing processes, which includes the following:

- **Horizon 1:** Energy Optimization

- **Horizon 2:** Energy Reduction Through Equipment Investment

- **Horizon 3:** Technology Innovation

To further drive decarbonization in our Composites business, Owens Corning has joined 22 other companies in a collaborative project called H2GLASS. Established by Horizon Europe, H2GLASS aims to develop ways to replace natural gas with hydrogen and utilize oxy-fuel combustion energy. Horizon Europe funds research and innovation dedicated to combating climate change through collaboration and the sharing of knowledge. The project launched in January 2023.

We are also members of the [Carbon Leadership Forum](https://www.carbonleadershipforum.org), a coalition of architects, engineers, contractors, material suppliers, building owners, and policymakers dedicated to dramatically reducing the embodied carbon in the building industry and promoting whole-building life cycle assessments and impact reductions.

Decarbonization also requires the elimination of embodied carbon from our suppliers. Learn how we are working with our supplier base to eliminate these [Scope 3 emissions](https://www.owenscorning.com/sustainability/scope-3-emissions) in the [Supply Chain Sustainability chapter](https://www.owenscorning.com/sustainability/supply-chain) of this report.

To help our customers reduce their embodied carbon, Owens Corning is a Methodology Partner in the development of the [Embodied Carbon in Construction Calculator (EC3)](https://www.embodiedcarbon.com), a tool designed to help designers and specifiers look at a project’s overall embodied carbon emissions, enabling the specification and procurement of low-carbon options.

Photo submitted by:

Julia Button | Nephi, Utah, U.S.

Julia Button (pictured), running the San Juan River in Utah, U.S.
A HOLISTIC APPROACH TO SUSTAINABLE INNOVATION

Reducing embodied carbon is essential to securing a better future, and it is a key component in the next phase of our sustainability journey. Our efforts deliver benefits that extend beyond decarbonization — they are helping ensure that we are doing our part to make the world a better place.

Decarbonization is part of a broader approach aimed at making products that are fundamentally safe and sustainable in their design, creation, use, and eventual end-of-life. We seek to drive continual improvement in the development of products that reduce our own impacts and help our customers meet their own sustainability needs. In the pages that follow, we will demonstrate how we are putting the principles of product stewardship to work to build a more sustainable future through material innovation.

Denver, Colorado, U.S.
Engineering lead Cecil Ridenour and videographer Zach Rader (left) document the shingle manufacturing process.
In this chapter:

- INNOVATION BASED ON PRODUCT STEWARDSHIP PRINCIPLES
- INNOVATIONS THAT MAKE A MATERIAL DIFFERENCE
- OUR COMMITMENT TO TRANSPARENCY

We understand that we must design solutions that meet the sustainability objectives of our customers while upholding our own standards as a responsible company. As part of our commitment to offer the most recognized and preferred products on the planet, we aspire to minimize any negative impact from our products while increasing the positive impacts our products have on the world.

Photo: Science & Technology Center, Granville, Ohio, U.S.
INNOVATION BASED ON PRODUCT STEWARDSHIP PRINCIPLES

As we continue to innovate, we do so with the understanding that our people share a responsibility for reducing any negative impact from our products and increasing their positive impacts. We accomplish this by applying product stewardship guidelines throughout the design and production phases of our products — and challenging ourselves to perform more effectively year over year. Across all three of our businesses, we seek to implement continuous and measurable improvements in the way our products are developed and produced, reducing their environmental footprint by:

- Saving energy and water
- Using salvaged, recycled, or plant-based input materials
- Conserving natural resources by reducing material usage or by using materials that are exceptionally durable, low-maintenance, or renewable
- Reducing the risk of exposure to hazardous and harmful materials
- Contributing to a safe and healthy indoor environment
- Striving to make products that are reusable and recyclable at their end-of-life stage

An Organization Dedicated to Product Stewardship

Our product stewardship program is a collaborative effort among many individuals, each of whom brings their own expertise across a range of subjects and practice areas. Together, the product stewardship organization provides counsel, guidance, and direction to ensure compliance with our policies and standards. The organization consists of the following:

- **Chief Sustainability Officer (CSO)**
- **Senior Director, Sustainability**
- **Product Stewardship Leader**
  - Manages the stewardship process
  - Leverages the expertise of the product stewardship review board

**Product Stewardship Review Board**

- Global members with expertise in:
  - Environmental, Health, and Safety (EHS)
  - Chemistry
  - Product Compliance
  - Building Science
  - Sustainability
  - Sourcing
  - Reliability engineering
  - Technical subject matter experts
  - Analytical testing
  - Marketing and advertising regulations

- In alignment with our Environmental, Health, Safety and Product Stewardship Policy, the product stewardship review board meets weekly to carry out product reviews for all new and significantly modified products at one or more of the following stages:
  - Design
  - Development
  - Test market
  - Manufacture
  - Launch

**Product Stewardship Advisory Council**

- Senior business and functional leaders who are responsible for linking product stewardship to the Owens Corning enterprise
- Meets throughout the year to provide insights into key EHS and performance issues, review product stewardship guidelines, discuss product stewardship review board activities, and communicate product stewardship principles throughout the company
PRODUCT STEWARDSHIP POLICIES AND RESOURCES

We have a range of guidelines and standards that our product developers, engineers, and scientists are expected to follow to help meet our objectives for product stewardship. This includes the Owens Corning Business Code of Conduct, which contains information about environmental laws, regulations, and product stewardship guidelines that influence our business. All staff employees are required to complete annual training on the Business Code of Conduct, which includes information about the internal controls we have in place regarding our EHS impacts.

In addition, all new and significantly modified products are required to undergo at least one review to ensure that they comply with our Environmental, Health, Safety, and Product Stewardship Policy, as well as regulatory compliance guidance and other requirements.

Through these efforts, we work to ensure that Owens Corning products are:

- Safe and environmentally sound to make
- Safe and environmentally sound to use
- Safe and environmentally sound to dispose of
- Able to perform as claimed

Failure Mode and Effects Analysis

To help ensure that our products are safe to use and perform as claimed, we develop a risk mitigation plan based on the results of failure mode and effects analysis (FMEA) for every product we produce. The FMEA process offers a systematic way to identify, evaluate, reduce, or eliminate problems in products or processes, and it is conducted by cross-functional teams to ensure that it reflects different perspectives and knowledge.

The Ecodesign Strategy Wheel

As part of the product stewardship review process, we evaluate the sustainability impacts of research and development (R&D) projects, new products, and new processes using the Ecodesign Strategy Wheel, inspired by the Okala Ecodesign Strategy Wheel. This powerful brainstorming tool divides the product’s life cycle into seven stages and clusters strategies for product sustainability and Design for Environment for each stage. For each product development stage, appropriate questions are designed to spark thinking about sustainable approaches throughout the process.

The Ecodesign Strategy Wheel is available to all project teams and is required as part of the product stewardship review board process. The seven stages of the Ecodesign Strategy Wheel are:

1. **Reimagined Design**
   - We are encouraged to reimagine the design of our products, consider the possibility of bundling multiple functions into a product, design products that can deliver their function in more efficient ways, and take inspirations from nature.

2. **Reduced Material Impacts**
   - Our goal is to choose materials wisely, reducing the use of virgin materials and avoiding those that damage human or ecological health while opting for those that adhere to our sustainability goals.

3. **Reduced Manufacturing Impact**
   - We strive to be more efficient in manufacturing our products, eliminating waste and emissions from our operations, and minimizing energy and water usage.

4. **Reduced Logistics Impact**
   - We endeavor to source locally, use lowest-impact transportation, reduce the volume and weight of our products, and develop reusable packaging.

5. **Reduced Use-Phase Impact**
   - We continue to focus on designing products that help our customers conserve resources and improve their own impact on the planet.

6. **System Longevity**
   - We seek to design products that can stay in the economy forever — long-lasting, easily repaired, and repurposed — and recycled when full circularity is not yet achievable.

7. **Optimized End of Life**
   - We set out to design products for fast disassembly and integrate methods for collecting products at the end of their first intended life for repair, reuse, repurposing, or recycling.
Advanced Manufacturing and Productivity

Efficient resource use is key to our sustainable innovation and growth, and our advanced manufacturing team looks for ways to help us achieve the greatest possible output with the least possible input.

This work is supported by our digital transformation efforts in manufacturing, where we are using proven digital technologies to design, construct, and operate our manufacturing assets more efficiently in service to our customers. We are working to accelerate the digital transformation of our manufacturing operations by focusing on the following:

■ **Digital Engineering.** We are using model-based design, cost estimation and controls technologies, modular construction, and life cycle costing to provide critical insights into our design and build processes. These digital engineering initiatives will help us design and build better and more efficiently as we integrate models and engineering data with construction science for capital efficiency.

■ **Digital Process and Automation.** We can also operate more efficiently by integrating data and science with automation and controls, as this can free capacity, drive quality, and lower cost. Investments in robotics and automation, asset performance management, advanced process controls, and remote collaboration are giving us the tools needed to reach our goals.

■ **Analytics and Modeling.** We are combining our capabilities with the latest in modeling science to optimize our designs and operations. Through advanced analytics, process modeling, predictive maintenance, and real-time optimization, we are disrupting the current operating models to spur innovation.

Improving productivity through advanced manufacturing enables growth that aligns with our aspiration to be a net-positive company. In addition, we apply advanced process controls to increase predictability in our manufacturing processes, which leads to improved product performance and helps us use materials more effectively, reducing cost and our footprint. As an additional benefit of our increased efficiency, our operations are more stable. This has the potential to contribute to safety within our facilities, as employees are less likely to be in unplanned or unexpected situations.

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Photo submitted by:
Stefan Messmer | Nephi, Utah
Grand Canyon National Park, Arizona, U.S.
INNOVATIONS THAT MAKE A MATERIAL DIFFERENCE

Building on this solid foundation of product stewardship, Owens Corning innovates in ways that increase our positive impacts and allow customers to achieve their own sustainability goals. Our commitment to building a better future has resulted in a portfolio of products that help set the standards for sustainability throughout our industry. Across all three of our businesses, we offer an extensive portfolio of products that can help our customers save energy and lower emissions. In 2022, 63% of our revenue came from this category of products. The following examples represent some of our recent successes.

### Insulation Innovations

**PINK Next Gen™ Fiberglas™** insulation offers sustainability advantages. It has the highest certified recycled content in the industry, based on third-party certified recycled content certifications for unfaced fiberglass insulation products in North America. It is also certified as made with 100% renewable electricity through the use of power purchase agreements. In addition, it has earned Underwriter Laboratories (UL) GREENGUARD® Gold certification for low volatile organic compounds.

**FOAMULAR® NGX™** insulation contains a proprietary low global warming potential blowing agent blend that demonstrates a greater than 80% reduction in global warming potential compared to legacy FOAMULAR® insulation products.

**PAROC® Natura** stone wool insulation uses low-carbon melting technology, renewable electricity, and new technologies to deliver a product that uses low amounts of virgin raw material. The emissions that are produced are compensated for through the purchase of offsets in a verified emissions reduction scheme, enabling it to be certified carbon-neutral by a third-party organization.

### Composites Innovations

**WindStrand®** features a powerful combination of optimized design and reliability for long, light blades. This product allows blades to operate at low operating costs. **WindStrand® 4000, Ultrablade® 2,** and **Ultraspar™ 2** help wind blade manufacturers develop long, stiff, strong blades to make wind energy cost-effective.

**ArmaStrand™ Type 30®** Single-End Roving product is designed to increase the service life of rebar for customers in select markets while also increasing productivity. Using corrosion-resistant **Advantex®** glass fiber, ArmaStrand™ has the flexibility to be used in a variety of rebar manufacturing processes and maximizes the mechanical properties of rebar systems with increased fiber content and high bar modulus to meet industry demands.

**TurboStrand™ 4895** is an advanced product in the Type 30™ roving portfolio that is designed for polypropylene long-fiber thermoplastic applications in the manufacturing of structural and semi-structural automotive applications, including front-end modules, seat carriers, and door modules of both oil-fueled vehicles and electric vehicles. TurboStrand™ 4895 is also optimized for use in structural applications where the performance characteristics of a continuous unidirectional glass reinforcement can improve end-use performance.

### NEW IN 2022

**Thermafiber® Fire & Sound Guard® Plus** mineral wool batt insulation provides thermal performance, noise control, and fire resistance in residential and light commercial construction applications. It contains a minimum of 70% recycled content and has a certified EPD and a published HPD. Thermafiber® Fire & Sound Guard® Plus has low density, offering more available square footage in bags and trucks.

**Thermafiber® RainBarrier® Dark™** is an extension of our RainBarrier® line, featuring a black veil that provides aesthetic benefits along with performance. Thermafiber® RainBarrier® Dark contains a minimum of 70% recycled content and meets the requirements for LEED® and Green Globes certification.

**PAROC® Pro Wired Mat LE** is a heavy-duty noncombustible stone wool wired mat insulation with low emission binder technology and galvanized net for industrial applications. It meets the requirements for LEED® certification.

**PINKBAR®+ Fiberglas™ Rebar** is lighter and stronger than traditional steel rebar, offering sustainability advantages for optimal performance. Because of its lighter weight, it can be delivered with fewer trucks, which helps reduce the GHG emissions associated with transportation.
Roofing Innovations

Duration FLEX® modified polymer asphalt shingles feature SureNail® technology, with nearly 1.5x the nail-pull strength and 10% better overall strength than standard shingles. Duration FLEX® also features improved granular adhesion and offers UL 2218 Class 4 impact resistance. Customers in the U.S. and Canada have access to a version of Duration FLEX® that meets CSA 123.5 standards.

The Cool Roof Collection uses a reflective granule technology that reflects the sun's rays, keeping roofs cooler and reducing air conditioning energy levels. Owens Corning offers a wide array of shingle choices that meet or exceed an aged Solar Reflectance Index (SRI) of 20 – the current aged SRI minimum required for the Green Building Standards Code of Los Angeles County and Los Angeles City Cool Roofs Ordinance. In 2021, Owens Corning launched Duration® COOL Plus Midnight, a new dark color offering in this energy-saving line.

With our Trumbull® asphalt, we have made strides to reduce the number of oxidized products we produce for external asphalt markets. In 2015, 8% of our products were nonoxidized. Today, approximately 40% of the products we produce for the external asphalt business are nonoxidized, less energy, lower temperatures, and fewer emissions are required to produce them. Collectively, this has resulted in a 2% improvement in material efficiency across the 12 asphalt plants in our network.

European Union (EU) policy requires all plastic packaging in the EU market to be recyclable or reusable by 2030 to support the transition to a circular economy. Owens Corning is partnering with key players in lumber and steel to develop solutions through our expertise in polymer streams, with a goal of achieving these solutions by 2025.

Our Commitment to Transparency

As part of our product sustainability goals, we are committed to evaluating our core products’ impacts throughout their life cycles — and to being fully transparent about our findings. We adopted a methodology to demonstrate the cradle-to-grave environmental impact:

- Conduct a life cycle assessment (LCA) according to the ISO 14040, 14044. As applicable, the studies also align with ISO 14025, ISO 21930, EN 15804 and the appropriate product category rules. A third-party review is conducted to verify compliance with the standards.

- When appropriate, summarize the results of the LCA to develop an environmental product declaration (EPD) and implement continuous and measurable improvements related to those impacts.

Owens Corning remains committed to transparency about our products, from raw materials through production, use, and end of life, and we are dedicated to collaborating with our supply chain partners and customers to facilitate the adoption of a transparent value chain.

Product Certifications and Disclosures

We rely on third-party organizations to test and certify product attributes and to disclose their EHS impacts. We also perform regular follow-up testing to maintain our certifications. We disclose core building products’ environmental impacts through the issuance of EPDs in accordance with ISO standards.

Prior to being introduced in the marketplace, all product packaging and advertising is thoroughly reviewed by our technical and legal departments, along with applicable business units, to ensure compliance with all regulations and codes. Owens Corning had no significant incidents of noncompliance with regulations or voluntary codes concerning the labeling, marketing, or advertising of our products and material services. In addition, Owens Corning had no incidents of noncompliance concerning the health and safety of our products in 2022. We have active product stewardship and product regulatory compliance programs designed to prevent product-related health and safety incidents.
Life Cycle Assessments

To ensure we are effectively working toward our net-positive aspirations, it is important to understand how our work in product development and manufacturing affects our environmental impact. One tool we use to develop this understanding is the life cycle assessment (LCA), which provides a detailed look at the life cycle of a product, starting with when raw materials come out of the ground or enter our process from a recycling stream. LCAs also consider the transportation that brings materials to the plant, along with utilities, emissions, and waste involved in converting the materials to a product in the plant. Some of our LCAs also include the use phase, any impacts from the use of products during their lifetimes, and their end-of-life impacts — either through transportation to the landfill or recycling.

By using LCAs, we are able to understand which parts of the process have significant contributions to that product’s overall footprint, allowing us to focus our resources in impactful ways. It also ensures we do not shift the burden from one area of the process to another.

We have conducted full LCAs on 82% of our products, including shingles, protective packaging, fiberglass, mineral wool, FOAMGLAS® cellular glass, and extruded polystyrene (XPS) foam insulation, as well as composite glass product offerings such as reinforcements, nonwoven mats, and technical fabrics. In addition, we have conducted simplified LCAs — also called screening LCAs — for 5% of our other products.

By performing LCAs, we have identified many opportunities for improvement in our processes and products. We have also identified high-impact raw materials, enabling us to work with suppliers to reduce their footprint, which in turn, helps us reduce ours. In 2022, we updated LCAs and Environmental Product Declarations for our metal building insulation products, and we added residential insulation from our facilities in Mexico to our portfolio. We performed LCA work for nonwovens made in two global plants, as well as glass reinforcements made in three global plants.

Environmental Product Declarations (EPDs)

EPDs are publicly available, third-party-verified sources for embodied carbon values. We have conducted life cycle analyses (LCAs) and have issued EPDs for the following products:

- EcoTouch® Fiberglas™ insulation products
- Metal Building Insulation (MBI)
- Unbonded loosefill insulation
- FOAMULAR® XPS insulation
- FOAMULAR® NGX™ XPS insulation
- FOAMGLAS® cellular glass insulation
- PAROC® stone wool insulation
- PAROC® Natura Lana stone wool insulation
- Thermafiber® Mineral Wool Unbonded Loosefill
- Thermafiber® mineral wool insulation
- Thermafiber® Formaldehyde-Free Mineral Wool Insulation
- Owens Corning® asphalt roofing shingles
- WeatherPro® Lumber Wrap
- Fiberglas™ pipe insulation
- 700 Series Fiberglas™ insulation
- QuietR® duct board
- SOFTR® duct wrap
- Aislhogar® Insulation

A number of Owens Corning® products are certified as made with 100% renewable electricity and are part of our reduced-embodied-carbon portfolio. Learn more on page 145.

Recycled Content

Owens Corning is a prominent user of recycled glass, annually using over 1 billion pounds of curbside consumer containers and pre-consumer recycled glass. Not only does this decrease community landfill waste, but it also lowers our energy use when manufacturing insulation, since starting with raw materials such as sand requires more energy.

Scientific Certification Systems (SCS) Global Services verifies recycled content in our fiberglass and extruded polystyrene (XPS) foam insulation products in North America. ICC Evaluation Services (ICC-ES) verifies recycled content in our Thermafiber® insulation products. Owens Corning® Thermafiber® mineral wool insulation products are certified to have a minimum 70% recycled content.
SPEAKING OF SUSTAINABILITY

Fawn Uhl
Director of R&D, Building Insulation and FOAMULAR®

With a background in chemistry, Fawn Uhl brings a unique perspective to Owens Corning’s research and development initiatives. As she works to bring innovative products to the market, Fawn also seeks out the unique perspectives of her colleagues. Fawn has been with Owens Corning for nearly 19 years, 16 of them in our Insulation business. In that time, she has worked with a diverse group of people who bring their knowledge and expertise to the product design process. In her years at Owens Corning, Fawn has seen sustainability become an increasingly important part of product innovation, and she talks about the importance of maintaining the connection between the two.

“"We’re bringing diverse thinking and diverse people together to deliver impactful solutions.”"
Material Health

In accordance with our Environmental, Health, Safety, and Product Stewardship Policy, we provide information about all our products, their performance, and safe use best practices. Product content information can be found on product labels, EPDs, Health Product Declarations® (HPDs), and other transparency documents such as Declare labels. Content and disposal information is included on safety data sheets or safe use instruction sheets.

Health Product Declarations® (HPDs) and Declare Labels

HPDs are an effective means of reporting the chemical makeup of a product and disclosing potential hazard concerns. The reporting of HPDs follows a set of stringent guidelines set by the Health Product Declaration Collaborative® (HPDC). Potential hazards are screened based on the GreenScreen for Safer Chemicals guidelines and additional guidance from other agencies. HPDs enable architects, builders, and specifiers to evaluate and specify products with a comprehensive understanding of the product composition and potential hazards. Owens Corning’s HPDs are available for download from the HPD Public Repository. In 2022, we worked to ensure that all certifications were current, and we added two new HPDs for products made in Latin America.

Owens Corning also has Living Building Challenge-compliant Declare labels from the International Living Future Institute™ for unbonded loosefill fiberglass insulation, unfaced and kraft-faced PINK Next Gen™ Fiberglas™ (formerly EcoTouch®) insulation, faced and unfaced Thermafiber® formaldehyde-free mineral wool insulation, and Thermafiber® Rainbarrier® continuous mineral wool insulation. This certification demonstrates these products are fully compliant with the Living Building Challenge and allows them to be specified for such projects. In 2022, we reviewed the existing certifications and updated as appropriate.

GREENGUARD® and GREENGUARD® Gold

UL GREENGUARD® Certification is awarded to products that meet comprehensive standards for low emissions of volatile organic compounds (VOCs) into indoor air. The UL GREENGUARD® Gold standard includes health-based criteria for additional chemicals and requires lower total VOC emissions levels. Products meeting UL GREENGUARD® Gold requirements are qualified for use in environments such as schools and healthcare facilities. GREENGUARD® Gold Certified products must follow requirements of the State of California's Department of Public Health “Standard Method for the Testing and Evaluation of Volatile Organic Chemical Emissions from Indoor Sources Using Environmental Chambers, Version 1.1 (2010)” (also known as California Section 01350). A list of all Owens Corning® GREENGUARD® Gold certified products can be found on the UL SPOT website.

Formaldehyde-Free Claim Verification

UL Environment validates claims that a product does not contain formaldehyde (or formaldehyde precursors). The validation is based on auditing raw material inputs and testing chemical emissions from the product. Products with Formaldehyde-Free claim validation must also maintain UL GREENGUARD® Gold certification. All Owens Corning® products that are verified to be formaldehyde-free by UL can be found on UL SPOT website.

USDA BioPreferred®

The U.S. Department of Agriculture (USDA) biobased labeling initiative is an element of the U.S. Farm Bill that focuses on increasing the purchase and use of biobased products made from renewable agricultural materials. In order to be certified by the USDA, vendor products are required to undergo biobased product testing by an accredited laboratory. Owens Corning’s certified products are listed in the USDA’s BioPreferred® Program Catalog and eligible for preferred federal purchasing.
Managing Materials of Concern
All our manufacturing facilities and the products manufactured under our control are governed by our efforts to manage materials of concern (MOC). These efforts apply to the use of raw materials and other substances used to produce products across all business activities. This includes R&D, manufacturing, tolling operations, distribution, and materials used to maintain the site facility and equipment. In addition, companies that supply us with raw materials are expected to verify that all materials used in the manufacture of Owens Corning® products or the sale of products to Owens Corning were sourced in compliance with all applicable environmental laws, regulations, and legal requirements, per our Supplier Code of Conduct.

As part of our product stewardship review process, a list of MOCs is published on our intranet, where it is updated twice per year. By observing these guidelines, we can:

- Control the use of chemicals, polymers, and other materials
- Comply with laws and regulations in the places where we make and sell our products
- Ensure our products are safe to make, use, and dispose of

To ensure the identification and replacement of any regionally banned or future banned chemicals, all our businesses are required to comply with the MOC list in the development of new or significantly modified products. These guidelines apply to all our controlled domestic and foreign subsidiaries and all other legal entities in which Owens Corning has controlling interest.

As stakeholders become more interested in understanding the chemical compositions of our products, our product sustainability team develops programs to address all product-related stakeholder questions and concerns. In some regions, we have products on a timeline for discontinuance based on updated regulations. When we learn an ingredient is scheduled to be banned or restricted, we put a replacement plan into action. Under these plans, we evaluate the applicable product line and enable R&D to address material substitution needs.

Red List Chemicals
Many chemicals do not necessarily fall under regulatory restrictions in certain jurisdictions around the world, but green building rating system developers and architecture firms have flagged them as chemicals of potential concern. We monitor these Red List chemicals and consider the current status of listed ingredients as new products are developed or existing products are modified.

We recognize that customers seeking specific certifications are choosing products that do not feature chemicals that appear on that certifier’s red list. Therefore, it is mutually beneficial both to us and the customer that we are transparent and provide information about the chemicals used to make our products.

Fiber Safety
Owens Corning has been a pioneer in the science of fiber safety, and we continue to provide industry-leading expertise. By engineering our continuous filament fibers to be too large to be inhaled, and by controlling the composition of the raw materials we use to make our insulation wool, we ensure that all our fiber-based products are safe to manufacture and use. Owens Corning has an internal product stewardship guideline regarding fibrous material usage, which states the company will not knowingly manufacture or use any fiber or fiber-containing material unless the fibers are shown to be nonrespirable or biosoluble, or unless use of the material generates insignificant exposure as shown by measurements in the manufacturing and end-use environments. Compliance with this guideline is verified during product stewardship reviews.

The safety of Owens Corning insulation products is supported by a 2001 decision by the International Agency for Research on Cancer, which classified fiberglass wool as “not classifiable as to its carcinogenicity to humans.” In addition, the U.S. National Toxicology Program (NTP) removed soluble glass wool fibers from its list of substances “reasonably anticipated to be a human carcinogen.” The decision was released in 2012 in a report to the U.S. Congress. In 2011, soluble glass fibers were removed from the California Prop 65 list. Owens Corning mineral wool products were never listed by NTP or Prop 65. We perform regular composition audits to ensure the fibrous insulation products produced in our plants have the correct composition to meet our standards and those of various regulatory agencies. By the end of 2022, more than 1,300 Owens Corning employees had taken our fiber safety online training course. As a result of this training, they have a better understanding of fiber health and our stance regarding the kind of glass fiber we produce and use.
To operationalize sustainability and develop the innovations that can help us achieve our ambitions, we must be able to build upon a solid foundation.

That foundation requires an overarching commitment to reducing our environmental impact, beginning with our leadership and extending throughout our entire enterprise.

- **Our sustainability efforts are supported by Owens Corning's leadership**, including our board of directors. These individuals are selected in part due to their commitment to the environmental, social, and governance principles of corporate citizenship, as well as the ethical standards that shape our business practices.

- **Our environmental management system and our approach to environmental compliance** are central to our overall approach to sustainability, and they help guide the many ways we reduce our environmental impact throughout our operations.

As we have advanced along our sustainability journey, we have been able to build upon our foundation, expanding our definition to include the well-being of people everywhere — including our own people.

- **We recognize that the health and safety of our employees are vital components of our approach.**
  We have included Living Safely and Health & Wellness among the material topics that most directly impact our operations. This is because topics such as these have a tremendous potential to improve the quality of life for our employees, their families, and the communities where they live. As we implement these initiatives throughout our facilities, we believe they will inspire our people to prioritize safety and well-being outside the workplace as well.

Throughout this section, we will spotlight the many ways we are working to safeguard the environment, promote health and wellness, and ensure the safety of our people — and in doing so, reinforce the foundations of sustainability that have guided us for years.

**Learn More**

- Board Leadership
- Upholding Ethical Standards
- Environmental Compliance
- Living Safely
- Health & Wellness
Owens Corning’s commitment to sustainability is deeply embedded in our corporate culture. It relies on a shared vision that extends from our frontline employees, who are operationalizing sustainability throughout our enterprise, to our board of directors, who are helping steer us toward our 2030 sustainability goals. The individuals who serve on our board are dedicated to increasing our positive impacts, reducing our negative impacts, and ensuring the growth of the company.

The Owens Corning Board of Directors

Owens Corning’s board of directors (the “board”) consists of one executive director and nine independent non-executive directors.

<table>
<thead>
<tr>
<th>NAME</th>
<th>SIGNIFICANT POSITIONS &amp; COMMITMENTS</th>
<th>AGE</th>
<th>INITIAL YEAR AS A DIRECTOR</th>
<th>ROLE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mr. Brian D. Chambers</td>
<td>President, CEO, and Chair of the Board for Owens Corning; Director of Lincoln Electric Holdings, Inc.</td>
<td>56</td>
<td>2019</td>
<td>Executive</td>
</tr>
<tr>
<td>Mr. Eduardo E. Cordeiro*</td>
<td>Former Executive Vice President, CFO of Cabot Corporation; Director of FMC Corporation</td>
<td>55</td>
<td>2019</td>
<td>Independent Non-Executive Director</td>
</tr>
<tr>
<td>Ms. Adrienne D. Elsner†</td>
<td>Former President, CEO, and Director of Charlotte’s Web Holding Inc.; Former President of U.S. Snacks, Kellogg Company</td>
<td>60</td>
<td>2018</td>
<td>Independent Non-Executive Director</td>
</tr>
<tr>
<td>Mr. Alfred E. Festa</td>
<td>Former Chairman and CEO of W.R. Grace &amp; Company; Director of NVR, Inc.</td>
<td>63</td>
<td>2020</td>
<td>Independent Non-Executive Director</td>
</tr>
<tr>
<td>Mr. Edward F. Lonergan</td>
<td>Executive Chairman of Zep Inc.; Chairman of DRB Systems Inc.; Former Director of The Schwan Food Company; Senior Advisor at New Mountain Capital</td>
<td>63</td>
<td>2013</td>
<td>Independent Non-Executive Director</td>
</tr>
<tr>
<td>Ms. Maryann T. Mannen†</td>
<td>Executive Vice President and CFO of Marathon Petroleum Corporation; Director of MPLX LP</td>
<td>60</td>
<td>2014</td>
<td>Independent Non-Executive Director</td>
</tr>
<tr>
<td>Mr. Paul E. Martin*</td>
<td>Former Senior Vice President and Chief Information Officer of Baxter International Inc.; Director of Unisys Corporation and STERIS plc.</td>
<td>64</td>
<td>2021</td>
<td>Independent Non-Executive Director</td>
</tr>
<tr>
<td>Mr. W. Howard Morris*</td>
<td>President and Chief Investment Officer of The Prairie &amp; Tireman Group; Director of Virtus Investment Partners, Inc.</td>
<td>62</td>
<td>2007</td>
<td>Independent Non-Executive Director</td>
</tr>
<tr>
<td>Ms. Suzanne P. Nimocks†</td>
<td>Former Senior Partner of McKinsey &amp; Company; Director of Ovintiv Inc., and Brookfield Infrastructure Partners</td>
<td>64</td>
<td>2012</td>
<td>Independent Non-Executive Director</td>
</tr>
<tr>
<td>Mr. John D. Williams</td>
<td>Director of Domtar Corporation; Director of Form Technologies</td>
<td>68</td>
<td>2011</td>
<td>Independent Non-Executive Director</td>
</tr>
</tbody>
</table>

* Denotes board members who identify as people of color
† Denotes board members who identify as women
The board has five committees:
- Audit committee
- Compensation committee
- Executive committee
- Finance committee
- Governance and nominating committee

Information about these committees and their responsibilities can be found in the Board and Committee Membership section of our 2023 Proxy Statement and on the Owens Corning website.

Current Leadership Structure

Brian D. Chambers assumed the chief executive officer (CEO) role in April 2019 and became board chair in April 2020. In April 2023, Suzanne P. Nimocks began her second two-year term as lead independent director (LID). The board has complete access to the company’s management, with an ongoing ability to review the board’s leadership structure and make changes as it deems necessary and appropriate. This gives them the flexibility to meet varying business, personnel, and organizational needs over time.

All board members, other than our board chair and CEO, are independent under all applicable legal, regulatory, and stock exchange requirements. Six board members have relevant experience in industrials and materials sectors where our products are sold. Average tenure on the board is currently seven years. The board believes that the current and future leadership structure is appropriate for Owens Corning considering our company’s governance structure, current needs, and business environment, as well as the unique talents, experiences, and attributes of the individuals in these roles. More information about the individual board members and their competencies can be found in our most recent Proxy Statement.

The board met five times in 2022. Board and board committee meetings had attendance rates of 100%. Each of our directors attended 100% of the meetings of the board and the board committees on which he or she served. In 2022, the non-management directors met in executive session five times. Our LID presides over all executive sessions of the board meetings attended by the LID.

Nomination and Selection of Qualified Board Members

The board is responsible for nominating candidates to the board, who are then elected by stockholders. They also fill vacancies that may occur between annual meetings of stockholders.

Owens Corning has formal procedures in place for the nomination and selection of potential board members. The governance and nominating committee is authorized to recommend only those candidates who meet our Director Qualification Standards, which are used to assist in determining director independence. Nominees for director are selected based on a wide range of criteria, including:
- Experience
- Knowledge
- Skills
- Expertise
- Mature judgment
- Acumen
- Character
- Integrity
- Diversity
- Ability to make independent analytical inquiries
- Understanding of the company’s business environment
- Willingness to devote adequate time and effort to board responsibilities

As outlined in our bylaws, each board member is elected individually on an annual basis and must receive a majority of the votes cast for that director. All our current non-executive directors have no more than four additional mandates to public boards, as required by our Director Qualification Standards.

The governance and nominating committee examines principal skills to evaluate an individual’s experience and qualifications to serve as director. With respect to sustainability, the committee assesses experience in or management responsibility for furthering sustainable business practices that address environmental, social, or ethical issues. Nine of our current board members demonstrate this skill.

We believe diversity enhances the board’s ability to manage and direct the company, and the committee considers diversity when identifying director nominees, as required by its charter and corporate governance guidelines. In this context, diversity refers to gender, race, ethnicity, nationality, national origin, or other elements of an individual’s identity. The effectiveness of this process is assessed annually by the full board as part of its self-evaluation process.
Management Oversight of Sustainability

According to our Directors’ Code of Conduct, sustainability includes the following concepts:

- Environmental compliance
- Product stewardship
- Personal safety
- The environmental and social impacts of our global operations and the products we make and sell

Oversight, guidance, and direction on sustainability issues — including our 2030 sustainability goals — is provided by the board of directors, who oversee management’s execution of our ESG strategy.

In addition, the board committees maintain oversight of management’s responsibilities for particular aspects of ESG associated with their respective areas, such as:

- Audit committee: legal and regulatory compliance
- Compensation committee: human capital management and inclusion and diversity
- Governance and nominating committee: board structure and stockholder rights

The board committees periodically provide reports concerning these ESG topics to the board, and the board considers and discusses such reports.

In addition, the audit committee and the board as a whole retain some oversight responsibility for environmental, health, and safety risks. Directors are expected to provide oversight, guidance, and direction on sustainability issues and opportunities that potentially impact our reputation and long-term economic viability. These sustainability issues include energy reduction, renewable energy, water scarcity, and waste reduction. We have a sustainability governance structure to discuss and make decisions on all issues related to economic, environmental, and social aspects. The board is responsible for overseeing risk for Owens Corning, and as such, they are also responsible for oversight of climate-related issues and opportunities.

Owens Corning created the chief sustainability officer (CSO) role in 2007 to underscore the essential role of sustainability in our overall operations. The CSO reports directly to the CEO and is responsible for our compliance with legal and company requirements related to environmental, safety, health, and sustainability. In addition, a sustainability organization, made up of approximately 50 employees, reports to the CSO. This team is accountable for circular economy, product stewardship, supply chain sustainability, sustainability reporting and analytics, operations sustainability, medical services, and EHS (environmental, health, and safety).

Vision and values related to sustainability are created by the CEO and the CSO, who create, maintain, and promote sustainability strategy and policies. In addition, they redefine targets and goals as needed.

The CSO and his organization are responsible for monitoring and reporting performance. We use the EcoStruxure™ Resource Advisor system from Schneider Electric to monitor our environmental metrics and data. Data is entered into the system, where they can be reviewed and analyzed. The sustainability leadership team meets regularly to:

- Review initiatives and performance against metrics
- Debate current trends in the market
- Evaluate the transparency of our product attributes and the level of information needed to satisfy customers
- Understand increasing stakeholder expectations

Climate-related issues are addressed through our risk management process and included in our risk registers, which are developed by the business and legal teams from the plant level up.
Board Education

New directors undergo an orientation program covering a wide range of topics, including strategic plans and significant issues related to finance, accounting, and risk management issues to ensure they are fully knowledgeable about our company. They also review compliance programs, conflict policies, codes of business conduct and ethics, and governance guidelines. The orientation also includes opportunities to become familiar with principal officers, internal auditors, and independent auditors, as well as receive briefings from the CEO and management.

Following the orientation process, directors are expected to continue learning about our business and related issues, so they maintain the necessary expertise and competency to perform their responsibilities as directors. This continued learning includes consultations with our executive officers, review of relevant materials, visits to offices and plants, and participation in third-party educational programs. The governance and nominating committee also receives periodic updates on environmental, social, and governance issues.

Board and Committee Evaluation

Our Corporate Governance Guidelines specify that each year, the governance and nominating committee evaluates the effectiveness of the board, its committees, the chair and CEO, and committee charters. The evaluation process is as follows:

- The board and its committees complete annual self-assessment questionnaires and have individual discussions with the LID to evaluate effectiveness in several areas, including board composition, structure, and process.
- The completed questionnaires are submitted to a third-party law firm, which summarizes the results.
- The governance and nominating committee circulates the summarized results to all directors, except for results related to evaluation of the chair and CEO. Those are sent to the independent directors, to be discussed in an executive session of the non-management directors.

Conflicts of Interest

We have written policies and procedures in place related to avoiding, managing, and disclosing conflicts of interest by directors, officers, employees, and members of their immediate families.

As indicated in our Directors’ Code of Conduct, a director who has an actual or potential conflict of interest must disclose the following to the board chair and the chair of the governance and nominating committee:

- The existence and nature of the actual or potential conflict of interest
- All facts known to the individual regarding the transaction that may be material to a judgment about whether to proceed with the transaction
- The director may proceed with the transaction only after receiving approval from the governance and nominating committee. In our annual proxy statement, we disclose transactions between board members and their immediate families. For related-party transactions (RPTs) that are subject to the Financial Accounting Standards Board (FASB) Accounting Standards Codification (ASC) Topic 850, we comply with additional disclosure requirements. We also disclose with suppliers and other stakeholders all other conflicts of interest, such as the existence of controlling shareholders, cross-board membership, and cross-sharing.
UPHOLDING ETHICAL STANDARDS

In this chapter:
- OUR ETHICAL FOUNDATION
- OWENS CORNING’S ETHICS POLICIES

Integrity and transparency are the hallmarks of corporate citizenship. Owens Corning places a tremendous priority on these ideals, and we have established a robust set of policies and processes that enable us to put our principles into practice.

The Owens Corning Code of Conduct

Our Code of Conduct is an extension of our corporate values and guides our approach to business. The Code of Conduct was refreshed in 2021 to incorporate our updated values and to reflect the evolution of our expanding global presence and workforce.

It contains the principles that guide ethical conduct in our business, which are designed to ensure that our employees act with integrity and uphold our values:

- We care about health, safety, the environment, and each other.
- We are committed to lawful and high-integrity conduct.
- We are collaborative, respectful, and transparent.
- We are curious innovators, and we protect our company secrets and assets.

Our policies apply to every single person at Owens Corning, regardless of position, country, business unit, or subsidiary.

Owens Corning’s business conduct council and compliance committee have oversight and responsibility for worldwide compliance with these policies. Our general counsel and corporate secretary chair both the business conduct council and the compliance committee. Both groups report results to the audit committee of the board, which provides oversight.

Owens Corning maintains a confidential business code of conduct helpline and other mechanisms for receiving questions and concerns from our employees. Issues raised through this helpline are reviewed by the vice president of internal audit and the director of compliance. Further investigation and follow-up may be conducted by the internal audit team or external consultants, depending on the nature of the issue.

As part of our comprehensive corporate ethics and compliance program, we have specific policies that apply to our chief executive, senior financial officers, and members of the board of directors. Other business conduct policies apply to all employees on specific compliance topics.
Applying Our Principles to Our People

In addition to the Code of Conduct, the policies that guide us in all our interactions can be found in these documents:

- Director's Code of Conduct
- Ethics Policy for Chief Executive and Senior Financial Officers
- Supplier Code of Conduct
- Non-Discrimination & Non-Harassment Policy
- Human Rights Policy
- Data Privacy and Data Protection Policies

Our approach to ethics covers all full-time employees, part-time employees, contractors, and temporary staff of Owens Corning, the entities we own, the entities in which we hold a majority interest (including joint ventures), the facilities we manage, our franchises, and branded operations.

Moreover, we work with our suppliers, customers, and other business partners to uphold our ethical standards. We expect them to adopt similar policies within their businesses and extend the same protections to their various stakeholders. We use our Code of Conduct and Supplier Code of Conduct to review and evaluate our locations and acquisitions and guide our interactions with suppliers and other business partners.

Assessment of Our Compliance Program

The annual Compliance Program risk assessment is comprised of three elements:

- An enterprise risk management (ERM) Compliance Risk Sub-register
- Internal program assessment of maturity and effectiveness
- External audit of a selected high risk

The ERM Compliance Risk Sub-register contains the catalog of Owens Corning’s compliance risks that are assessed based on the potential likelihood and impact of a compliance failure along with the key mitigation actions to prevent, detect and respond to such risk potential. The internal program maturity and effectiveness assessment is conducted using an external tool or framework and in 2022, Owens Corning engaged a Gartner® assessment tool that measured the Compliance Program across seven objectives and 30 key management activities, which comprehensively represents a typical compliance function. Lastly, at least one high-risk compliance area is selected for external audit by a legal firm or a forensic audit firm. In the past five years, the high-risk areas have included, but are not limited to, Antitrust, Anti-corruption, Trade Compliance, and Data Privacy/General Data Protection Regulation (GDPR). Gaps and opportunities identified in the internal assessment or external audits are assigned to the appropriate subject matter risk owner and tracked for completion as part of the Compliance Risk Sub-register and/or compliance program annual strategic plan.

Employment Standards, Compensation, and Working Conditions

We provide employees with compensation, benefits, and working-hour schedules in compliance with all applicable laws and collective agreements. We support mechanisms for employee grievances and resolution of disputes that protect employees’ privacy, allow for anonymous reporting, and protect employees against retaliation.

Freedom of Association/Collective Bargaining

We do not restrict workers’ rights to exercise freedom of association or collective bargaining in any of our operations. Independent trade unions represent 64% of our primary employees, who are also covered by collective bargaining agreements. To support employees’ rights to exercise freedom of association and collective bargaining, we had 50 formal consultations (and many informal consultations) or negotiations with trade unions as of the end of 2022. These talks have focused on organizational changes, including restructuring and outsourcing. We also extend these principles to our suppliers, as outlined in our Supplier Code of Conduct.

Industrial Relations

Owens Corning makes use of various formal and informal processes to address and resolve labor practices at each facility. All labor practice concerns raised by employees are resolved, typically through a peer review or grievance process at the local level. Occasionally, local grievances require additional input at the divisional or corporate level. Any grievance that remains unresolved is definitively decided by a neutral arbitrator. Although the company does not compile the annual number of grievances or complaints filed by employees/unions at each plant, it is not unusual for each facility to resolve dozens of such labor concerns each year. In 2022, we had six labor concerns across Owens Corning’s U.S. operations that required the use of an arbitrator to reach a final disposition (i.e., grievance withdrawn, granted, or settled).

In the unfortunate event that one of the above mechanisms of resolution is unsuccessful, an employee may choose to proceed with legal action or file a complaint with a local agency. These are handled through Owens Corning’s legal department following the same guidelines of investigation, remediation, and non-retaliation policies.
Data Privacy

We view data privacy as an element of personal safety and comply with global privacy laws, and we collect, process, and transfer personal data in a trustworthy manner worldwide. Our commitment to data privacy extends to all Owens Corning employees and our stakeholders.

To address data privacy, Owens Corning works to:
- Minimize data collection
- Protect collected data
- Limit access to personal data only to appropriate personnel (our systems owners and data holders)
- Provide system owners and data handlers with extensive training on privacy laws such as the EU General Data Protection Regulation (GDPR)
- Ensure that processes are in place to respond to personal data requests and to mitigate or address any privacy breach or other issues

We also continuously strive to strengthen our data privacy program. In recent years, we have:
- Expanded the reach of our GDPR standards
- Developed our own global data protection standards
- Organized a cross-functional team to help maintain our protection standards and adapt to an evolving global landscape
- Raised awareness of data privacy within our organization
- Adapted our IT systems and platforms to reflect a “privacy by design” perspective
- Continuously assessed the IT environment and technical security systems of companies we acquire, ensuring that data collection and processing comply with our existing policy

We comply with all data privacy laws applicable in the countries and locations where we do business. We have also implemented enhanced security measures designed to protect against misappropriation or corruption of our systems, intentional or unintentional disclosure of confidential information, or disruption of our operations.

Owens Corning has established information security controls to prevent unauthorized access to our systems. External assessments of Owens Corning’s security controls are conducted at least twice a year to validate the effectiveness of the controls and identify areas of continuous improvement. Owens Corning received no substantiated complaints of customer data breaches in 2022.

Environmental, Health, Safety, and Product Stewardship Policy

We work toward continuous improvement in our EHS performance. We are committed to environmentally sound business practices, safe and secure working conditions, and workplaces that promote health and well-being. To ensure that our products perform as claimed and are safe and environmentally sound to make, use, and dispose of, we conduct a thorough review of any new or significantly modified product or manufacturing process. More information about our approach to product stewardship begins on page 148 of this report.

Non-Harassment Policies

Owens Corning intends for all employees to work in an environment free from harassment on any basis, including, but not limited to: race, color, sex, age, national origin, veteran or military status, pregnancy status, sexual orientation, gender identity, cultural affiliation, religion, genetic information, physical or mental disability, personal characteristics or circumstances, or any other characteristic protected by applicable law. Harassment is defined as any conduct that threatens, intimidates, or coerces another person. Regardless of whether it is committed by a co-worker, a manager, or even a nonemployee, harassment will never be tolerated at Owens Corning. Employees at all our worldwide locations and at all levels have the responsibility to avoid any act or actions that suggest harassment in the workplace or in a work setting. This includes interactions with contractors, vendors, consultants, customers, and other non-employees, such as visitors, who are involved with Owens Corning.

Travel and gathering restrictions due to the COVID-19 pandemic have impacted our ability to deliver non-harassment training to U.S. primary employees over the past few years. In 2022, 1% of U.S. primary employees were trained on non-harassment. We have started to expand our training, which includes non-harassment, beginning in 2023.

Owens Corning also has management training in place to help prevent harassment. This includes our leadership development program Leading Pink, which helps ensure that managers are aware of non-harassment policies and better equips them to enforce the policies when they see potential violations. Our company actively investigates allegations of harassment, evaluates the conduct and the context of the alleged behavior, and takes appropriate action. In 2022, the business conduct council reviewed and investigated five reports of harassment. Corrective action and improvements were taken as applicable.
OWENS CORNING’S ETHICS POLICIES

As part of our commitment to ethical business practices, it is Owens Corning’s policy to make full, fair, accurate, timely, and understandable disclosures in all reports and documents the company files with, submits, or furnishes to the U.S. Securities and Exchange Commission (SEC) and in all our other public communications. Our public disclosures are in compliance with all applicable laws, rules, and regulations.

The ethics policies outlined here demonstrate how we have established a solid foundation upon which we build our culture of integrity with our stakeholders around the world.

Senior Officer Policies

Ethics Policy for Chief Executive and Senior Financial Officers

Our ethics policy for senior officers sets forth policies to guide the performance of the chief executive officer (CEO), chief financial officer (CFO), and corporate controller. These officers are held to legal and ethical standards even beyond those of our other employees.

Reporting on Violations

Senior officers are required to report any suspected legal and ethical violations to our law department or corporate audit services or to any member of our business conduct council, a global team accountable for the management and oversight of the company’s internal investigations protocol and escalation of concerns, where appropriate. We also maintain a confidential reporting system for receiving advice and concerns from our employees, described in more detail later in this section.

Conflicts of Interest

No senior officer shall make any investment, accept any position or benefits, participate in any transaction or business arrangement, or otherwise act in a manner that creates or appears to create a conflict of interest with the company, unless the senior officer makes full disclosure of the facts and circumstances to, and obtains the prior written approval of, the governance and nominating committee of Owens Corning’s board of directors. Conflicts of interest requirements also apply to members of our board of directors.

Executive Compensation

Owens Corning continually monitors the evolution of compensation best practices and reviews the relationship between company performance and compensation and the goals and targets that we set. Individual goals and targets are designed to ensure that Owens Corning meets its financial and environmental goals while operating as an ethical company. In addition, Owens Corning has a fully non-executive Compensation Committee made up of all independent members. Our CEO and our named executive officers (NEOs) have substantial “pay at risk,” with 87% of our CEO’s and 74% of our NEOs’ target compensation being tied to annual and long-term incentives (as opposed to base salaries). Actual annual incentives and long-term incentive awards are subject to the achievement of pre-established performance requirements and designed to align with stockholder value. In 2022, these requirements were specified to include progress toward several sustainability goals: greenhouse gas emissions, waste management, safety, and inclusion and diversity. This is considered a best practice for building internal accountability around sustainability issues.

Base salary and other fixed elements of compensation are essential to any compensation program and enable the recruitment and retention of top talent. However, we believe that variable compensation for our most senior executives should significantly outweigh that from base salaries.

For a more detailed discussion of executive compensation, including ways we apply internal and external financial success metrics, please see the Executive Compensation section of our latest Proxy Statement, published in March 2023.

Ethics Policies Throughout Owens Corning

Open Reporting Process and Internal Investigations

Owens Corning ensures that all employees are aware of all applicable laws and company policies, including our Code of Conduct. Employees can voice their critical concerns about suspected misconduct, including harassment, discrimination, and other ethical issues through an open reporting process. All employees are encouraged to report suspicions of violations of law or policy and are expected to cooperate in the investigation of potential wrongdoing per our Code of Conduct. They can do so without fear of retaliation, which is strictly prohibited by Owens Corning to protect whistleblowers or individuals who raise concerns. No hardship, loss of benefits, nor penalty may be imposed on an employee as punishment for good-faith reporting of suspected misconduct, responding to a concern of suspected misconduct, appearing as a witness in the investigation of a report, serving as an investigator, or otherwise cooperating in a workplace investigation. Retaliation or attempted retaliation is a violation of our Code of Conduct, and anyone
who engages in retaliation may be subject to discipline, up to and including termination. This expectation is reinforced with senior business and human resources (HR) leadership during a quarterly compliance review.

Employees are encouraged to report their concerns to any manager, member of HR, or the law department, or any member of our business conduct council. Employees may also submit their concerns (anonymously, if desired) to our business conduct council through a confidential helpline (1-800-461-9330) or web portal which are operated by a third-party service provider. Employees can also report their concerns to the council using a designated email address or a dedicated postal mailbox.

Owens Corning takes all reports of misconduct seriously. Any concern brought to the company’s attention is thoroughly reviewed and investigated by the business conduct council as appropriate. We make every effort to ensure that investigations are consistent, comprehensive, and confidential to the greatest extent possible. If a report is substantiated, the company will respond as it deems appropriate or necessary, consistent with laws, internal procedures, and best practices, and we will act swiftly to correct the problem and deter future occurrences. Depending on the circumstances, this may include training and/or disciplinary action up to and including termination. Individuals suspected of being in violation of the law may also be subject to civil or criminal prosecution. Significant breaches of our Business Conduct Policies on the part of certain senior executives are escalated to the audit committee of the board of directors. The audit committee would determine the manner of investigation of any such reports, and disclose as applicable by law.

Internal investigations are reviewed for trends and opportunities at least quarterly and further discussed with senior business leaders. The audit committee receives a periodic report along with an update on the compliance program in general, including any breach of applicable law. Compliance operations will report significant highlights from the open reporting process to all employees annually, which may include the number of reported concerns received, the number of substantiated concerns, the percentage of anonymous reports, and the number of employees who were terminated for such concerns.

In 2022, there were no substantiated reports that had an actual or potential material financial impact on the company. Most reported concerns reviewed were employee-related matters, with a smaller number of business integrity reports. Fewer than 4% of the reports resulted in a finding of substantiated policy violations. Even if reports were not substantiated, many presented opportunities for improvements in management systems. Identified trends led to enterprise-level changes, including policy updates, targeted training, and improved communication. Since no concerns reported in 2022 were critical, no concerns advanced through our escalation process, nor was the board of directors called upon to respond.

## Anti-Corruption

Owens Corning uses many safeguards to avoid corruption related to our business — including corruption on the part of any of our employees, members of our board of directors, and business partners including third parties and independent agents. This policy is overseen by our audit committee. Our anti-corruption policies align with applicable anti-corruption laws, including but not limited to the U.S. Foreign Corrupt Practices Act of 1977 (FCPA), the UK Bribery Act, and the OECD Convention on Combating Bribery.

Specific controls exist within the Owens Corning treasury policies and procedures to review vendors and assess appropriateness before payments are processed. These controls are reviewed regularly by internal audit based on audit scoping. In addition, sensitive transactions, including gifts, travel, and entertainment, are reviewed using business analytics tools, as well as by our third-party business partner, to ensure compliance with Owens Corning policies. Additionally, internal audit performs an annual review of travel and expenses (T&E) to assess policy compliance, sensitive transactions, and potential misuse or abuse.

In 2022, our anti-corruption efforts resulted in the following outcomes:

- 100% of the members of our board of directors received communication on our anti-corruption policies, procedures, and compliance efforts.
- 100% of our employees received communication on our anti-corruption policies and procedures, and 100% of staff employees, which is approximately 30% (5,792) of all employees, completed training.
- Our internal process calls for all new suppliers to receive a copy of our Supplier Code of Conduct, which includes anti-corruption expectations.
- 100% of Owens Corning’s business was assessed for corruption risks, per an annual assessment cycle. Significant risks identified and assessed included customers, independent third parties (including facilitation payments), direct and indirect interactions with government officials (including gifts and entertainment), anti-money laundering, politically exposed persons, and bribery.
- Owens Corning received no fines, penalties, or settlements in relation to corruption in 2022. Furthermore, no employees were disciplined or dismissed due to noncompliance with anti-corruption policies in 2022. There were no confirmed incidents of corruption, termination of contracts with business partners, or public legal cases against Owens Corning or its employees related to corruption.
Anti-Competitive Behavior

In general, Owens Corning discourages employee contact with competitors. Employees who do have contact with a competitor must report that contact to the law department, even if business is not discussed:

- Before a scheduled meeting or call with a competitor, the law department must review the purpose of the meeting, the written agenda, a list of participants, and any documents or information that will be shared.

- After any contact with a competitor, scheduled or unscheduled, employees must file a report with the law department.

Owens Corning has established controls related to potential contact with competitors. These controls may be reviewed as part of a periodic audit process. The company has created a mobile-friendly web app to simplify reporting these interactions.

After extensive review, we have found no record of any fair competition breaches in our company’s history. We have also had no legal actions for anti-competitive behavior or monopoly practices.

Corporate Political Advocacy

Owens Corning incurs lobbying expenses directly through an internal registered lobbyist and four lobbying consultants, as well as indirectly through trade associations who lobby on behalf of their member companies.

In 2022, direct and indirect lobbying expenses for the company totaled $689,090. Lobbying-related expenses are a subset of the company’s overall advocacy-related expenditures, which also includes membership fees for industry associations. In 2022, the company’s overall advocacy-related expense was $3,665,599.

In 2022, the five largest lobbying-related expenses totaled $580,000, and were with the following organizations:

- WilmerHale
- Flywheel Government Solutions
- Niemala/Pappas
- Mehlman Castagnetti Rosen & Thomas
- Business Roundtable

In 2022, our three largest trade association or lobbyist expenditures were for North American Insulation Manufacturers Association (NAIMA), the Asphalt Roofing Manufacturers Association (ARMA), and the European Insulation Manufacturers Association (EURIMA). The company spent $2,100,118 with these three groups, which includes membership fees and contributions to trade associations.

Owens Corning’s political advocacy objectives support initiatives aligned with the company’s core principles and strategic business objectives. Examples of global public policies that Owens Corning actively support include but are not limited to: government actions to address climate change, measures to increase the energy efficiency of buildings, and efforts that drive building energy code development and adoption. We also work in conjunction with the National Association of Manufacturers, the Business Roundtable, and similar industry organizations to advocate for affordable housing and other social justice concerns. In 2022, energy efficiency advocacy accounted for around $340,000 worth of related expenses, and our engagements in support of improved building energy codes accounted for around $170,000, with some overlap of spending between these areas.

Owens Corning does not permit the use of corporate funds to support any political candidate, political organization, or campaign.
### Political Advocacy and Trade Expenditures

<table>
<thead>
<tr>
<th>TYPE OF CONTRIBUTION</th>
<th>2019</th>
<th>2020</th>
<th>2021</th>
<th>2022</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lobbying, interest representation, or similar</td>
<td>450,499</td>
<td>599,150</td>
<td>564,390</td>
<td>689,090</td>
</tr>
<tr>
<td>Local, regional, or national political campaigns / organizations / candidates</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Trade associations or tax-exempt groups (e.g., think tanks)</td>
<td>2,747,138</td>
<td>2,358,915</td>
<td>2,635,614</td>
<td>2,976,509</td>
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<tr>
<td>Other (e.g., spending related to ballot measures or referendums)</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td><strong>TOTAL CONTRIBUTIONS AND OTHER SPENDING</strong></td>
<td>3,197,637</td>
<td>2,958,065</td>
<td>3,200,004</td>
<td>3,655,599</td>
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</tbody>
</table>

Data coverage (as % of denominator) 100% 100% 100% 100%

Owens Corning Better Government Fund

Owens Corning employees have the option to make political contributions through our Owens Corning Better Government Fund. The fund is a voluntary, nonprofit, unincorporated committee operating as a separate, segregated fund of Owens Corning. The purpose of the fund is to provide our employees and shareholders with an opportunity to take part in the American political process. The fund provides a convenient way for these stakeholders to join a program of political giving so that they may have a united and constructive voice for better government, but prohibits direct or indirect contributions from Owens Corning or any other corporation or political action committee.

In 2022, the Owens Corning Better Government Fund distributed a total of $36,000 in contributions. A full list of recipients can be found in Appendix D. Additional information on the Better Government Fund’s contributions can be found at www.fec.gov.
ETHICS DRIVEN BY OUR VALUES

In 2022, Ethisphere named Owens Corning one of the world’s most ethical companies, making this the fifth consecutive year we received this recognition. We were one of only three companies in the construction and building materials industry to receive this honor. This recognition is a testament to the dedication of our employees around the world, who are committed to acting with integrity and behaving ethically in their business practices.

It is also a reminder that we must sustain that commitment across all our businesses and in all our operations, from safeguarding human rights around the world to upholding standards for our suppliers to setting stringent ethics policies for our senior leaders. We are guided by codes and policies that provide ethical templates for everyone — from our frontline workers to our CEO. This enables us to grow as a company without losing sight of our mission, our purpose, and our values.
ENVIRONMENTAL COMPLIANCE

In this chapter:
- ENVIRONMENTAL, HEALTH, SAFETY, AND PRODUCT STEWARDSHIP POLICY
- ENVIRONMENTAL MANAGEMENT SYSTEM

With operations throughout North America, Latin America, Europe, and Asia Pacific, Owens Corning is subject to a range of laws and regulations governing environmental and social topics. The policies and procedures we have in place ensure that our operations are conducted in compliance with all relevant laws and regulations. Through these efforts, we are able to meet our high standards for corporate sustainability and environmental stewardship. Environmental, health, and safety (EHS) professionals conduct internal environmental assessments at the site and business levels.
Owens Corning’s Environmental, Health, Safety, and Product Stewardship Policy

Owens Corning is committed to the safety and health of our employees, the principles of environmental sustainability, and product stewardship. To ensure an ongoing commitment to these principles, Owens Corning is dedicated to continuous improvement of EHS management systems, EHS performance, and meeting the aspirations outlined below.

Safety and Health
- Providing safe working conditions
- Promoting the health and well-being of our employees
- Consulting with primary and staff employees and encouraging their participation with management in EHS committees and a variety of safety and wellness teams
- Developing and prioritizing action plans at each site to eliminate or reduce its top risks

Environmental Protections and Sustainability
- Creating environmental awareness while conserving resources, preventing waste, reducing greenhouse gases, and protecting the environment and local communities
- Continuously improving our EHS performance and pollution-prevention efforts

Product Stewardship
- Manufacturing products that perform as claimed, and are safe and environmentally sound to make, use, and dispose
- Providing useful information regarding the performance and safe use of our products

Photo submitted by: Jan-Christian Stenroos | Parainen, Finland
Environmental Management System

Owens Corning’s Environmental Management System (EMS) is designed to support adherence to the principles in our EHS and Product Stewardship Policy, and to ensure our compliance with the national, regional, and local laws and regulations to which our facilities are subject. These include laws and regulations related to the protection of the environment, such as presence and management of hazardous materials, air emissions, discharges to water, handling and disposal of solid wastes, and remediation of contaminated sites.

The EMS is a collection of policies and procedures regarding the management of environmental performance in our facilities, including compliance and footprint reduction. It is based on the principles of ISO 14001 and helps our facilities track progress toward our long-term sustainability goals. Through our EMS, we can set and review the environmental objectives and targets that drive corrective actions, support continual environmental improvement, and ensure compliance with regulations. All our facilities are required to implement the system, track their progress, and perform environmental self-audits.

Our EMS includes the following elements:

- EHS policies that provide a framework for setting and reviewing our environmental objectives, as well as a commitment to continuous improvement and pollution prevention
- An action plan to achieve objectives and targets based on our policies and environmental aspects and impacts
- Identification of legal and other obligations, including regulatory requirements, Owens Corning standards, and other needs, such as ISO certifications
- A system wherein all required environmental tasks are assigned to appropriate personnel and completed correctly and on time
- An organizational structure that identifies specific environmental authorities and responsibilities
- Assurances that personnel have the training and competency needed to carry out assigned work related to environmental impacts
- Procedures that outline how environmental information is communicated internally and externally
- Processes for the storage, retrieval, and retention of environmental records
- Operating procedures to control environmental impacts, updated according to the Management of Change process
- Documented emergency procedures and plans for responding to known and potential emergency situations that could impact the environment, in alignment with an EHS Emergency Response Plan
- A process for identifying, reporting, investigating, and correcting nonconformities
- Periodic assessments to ensure the effectiveness of the EMS and its progress toward meeting environmental objectives and targets

In support of our EMS, the Insulation business developed Environmental Foundations, a new assessment that identifies specific elements necessary for our Insulation plants to continuously meet compliance obligations and manage or mitigate risk. In 2022, we assessed each of our Insulation plants and identified 14 new processes to improve performance. Each Insulation plant is required to have an environmental master plan that includes a closure plan for any identified Environmental Foundations gaps.

In the fourth quarter of 2022, we performed an enterprise-wide Annual EMS Assessment, which enables us to assess the corrective actions needed to improve our EMS. Though facilities are required to perform a self-assessment, this enterprise-wide view of our EMS will aid in prioritizing our focus and resources in the future.

At the end of 2022, 35% of our facilities were certified to the ISO 14001 for EMS, which accounts for approximately 49% of our employees. In addition, 51% of our facilities use our internal Owens Corning EMS, accounting for approximately 38% of our employees. Thus, 86% of our facilities have an EMS, accounting for approximately 87% of our employees. Further, 45% of our facilities were certified to the ISO 9001 standard for a Quality Management System (QMS), representing approximately 58% of our employees.

<table>
<thead>
<tr>
<th>ENVIRONMENTAL MANAGEMENT SYSTEM</th>
<th>LOCATIONS</th>
<th>EMPLOYEES</th>
</tr>
</thead>
<tbody>
<tr>
<td>ISO 14001 Certification</td>
<td>35%</td>
<td>49%</td>
</tr>
<tr>
<td>Internal Owens Corning EMS</td>
<td>51%</td>
<td>38%</td>
</tr>
<tr>
<td>Environmental Management System</td>
<td>86%</td>
<td>87%</td>
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</table>
Environmental Control

Owens Corning defines significant environmental actions as those in which the total cost of fines or penalties are equal to or greater than $100,000 USD. There were zero significant environmental actions reported in 2022. The company has not experienced a material adverse effect on our capital expenditures or competitive position as a result of environmental control legislation and regulations. Operating costs associated with environmental compliance were approximately $45 million in 2022. We continue to invest in equipment and process modifications to remain in compliance with applicable environmental laws and regulations.

Regulatory environmental activities of particular importance for our operations include those addressing the management of air pollution, water pollution, waste, and chemical control. Over the next two to five years, we expect passage and implementation of new laws and regulations specifically addressing climate change, toxic air emissions, ozone-depleting substances, and fine particulate matter.

New air pollution regulations could impact our ability to expand production or construct new facilities in certain regions in North America and around the world. We continue to monitor these potential impacts on our manufacturing operations and ensure that we have evaluated any new laws, regulations, and/or activities that could potentially have a material adverse effect on our current operations, financial condition, or long-term strategy. In support of these efforts, we continue to make progress in the reduction of our footprint globally.

Owens Corning is involved in remedial response activities and is responsible for environmental remediation at multiple sites, including certain currently owned or formerly owned plants. These responsibilities arise under several laws, including, but not limited to, the federal Resource Conservation and Recovery Act (RCRA) and similar state or local laws pertaining to the management and remediation of hazardous materials and petroleum. The company has also been named a potentially responsible party at various disposal sites, under the United States Federal Superfund law, or state equivalents. We became involved in these sites as a result of government action or in connection with business acquisitions.

At the end of 2022, Owens Corning was involved in remedial activities at 23 sites worldwide, including 13 currently owned or formerly owned sites and 10 Superfund sites (sites designated by the U.S. EPA as requiring long-term efforts to clean up contamination). None of the liabilities for these sites are individually significant to Owens Corning. On December 31, 2022, the company had an accrual totaling $5 million for these liabilities. Changes in required remediation procedures, timing of those procedures at existing legacy sites, or discovery of contamination at additional sites could result in material increases to our environmental obligations.

Significant Spills

Owens Corning acknowledges that releases, spills, or disposal of wastes and other substances by our operations could have negative environmental impacts. As part of Storm Water Pollution Prevention and Spill Prevention Countermeasure and Control in the U.S., and according to local legal requirements, we train our employees on best practices for avoiding and addressing spills. Response procedures for managing spills, as well as other emergencies, are in place for our facilities.

In the event of an incident, we recognize our responsibility to complete environmental remediation, maintain remediated sites, and provide funding support at multi-party disposal facilities. Owens Corning has had zero significant spills since 2013.

<table>
<thead>
<tr>
<th>Year</th>
<th>Spills: Number</th>
<th>Spills: Volume</th>
</tr>
</thead>
<tbody>
<tr>
<td>2018</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>2019</td>
<td>0</td>
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</tr>
<tr>
<td>2020</td>
<td>0</td>
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Our Commitment to Compliance and Corporate Citizenship

As the impacts of climate change increase, we expect regulations to continue becoming more stringent. We believe that the systems and policies we have in place will enable us to comply with governing bodies around the world.

Our EMS will help us comply with changing laws and regulations. It also serves as an effective blueprint for corporate citizenship around the world. Our policies and procedures ultimately support us as we seek to fulfill our purpose—in which our people and our products make the world a better place.
In this chapter:

- 2030 SAFETY GOALS
- BUILDING ON THE FOUNDATIONAL PRINCIPLES OF SAFETY
- LEADERSHIP DEDICATED TO SAFETY
- TRAINING & EMPOWERING EMPLOYEES FOR SAFETY

Twenty years ago, Owens Corning made the safety of our employees our primary focus. Since then, we've made incredible progress — our recordable incident rate (RIR) is nearly 90% lower than it was in 2002, and our current rate is far below the industry average. While our success in this area is inspiring, it serves to remind us that there is only one truly acceptable number of workplace incidents: zero.

Eliminating the risks that lead to accidents, work-related illnesses, and other safety incidents is imperative for several reasons. Most notably, we recognize that these incidents can have real — and occasionally severe — impacts on the lives of our people and their families. With that in mind, it is incumbent upon us to help create an environment where the potential impact of all incidents and especially potentially serious safety events is minimized and ultimately eliminated.

Owens Corning calls this effort our March to Zero. To guide us on this journey, we have established a wide range of strategies that begin at the leadership level and extend globally throughout all our sites. By continuing to value safety in all aspects of our operations, we believe that the ambitious goals we have set for ourselves are within reach.

The social data in this chapter marked with a * sign were independently assured to a moderate level by SCS Global Services. For more information on the assurance process see About the Report, and for our verification statement please see Appendix F.
By 2030, we aspire to achieve the following goals:

- **Make it impossible for injuries and illnesses to occur.** Ideally, we will do this by designing or redesigning equipment and processes with inherently low levels of risk. With the baseline level of risk minimized, engineering level controls will be applied as the primary tool in mitigating whatever level of risk remains. When the hazard cannot be eliminated and an engineering solution isn’t possible, we will continue to evaluate and implement strong warning, administrative, and personal protective equipment (PPE) controls.

- **In new or newly acquired sites, achieve a level of safety at least equivalent to the rest of Owens Corning within one year.** Since 2020, Owens Corning has acquired several companies and entered into a joint venture with operational control for sustainability reporting purposes. Ensuring that these companies deploy and adhere to our standards, and apply our safety processes to their operations, will be a key focus of our safety efforts. We are working toward this goal by ensuring that these newly acquired companies have environmental, health, and safety (EHS) leaders on staff, which may involve either hiring for this position or assigning EHS responsibilities to existing personnel. The Integration Management Office has been established to facilitate the overall integration process, and EHS representatives are participating in this effort.

- **Emphasize the elimination of risks that could lead to the most serious injuries, rather than concentrating only on the most frequent ones.** We aspire to eliminate all employee, contractor, and visitor injuries and occupational illnesses at work and at home, beginning with those that have the most serious consequences. While Owens Corning has a long-standing commitment to safety, we recognize that we must remain vigilant as we work toward our 2030 goals.

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**Safety Performance**

In 2022, our **recordable incident rate** (the number of injuries x 200,000 / total labor hours) was **0.65+**

This is **80%** below the industry average, as reported by the U.S. Bureau of Labor Statistics for 2021 (the most recent data available).

49% of our global facilities were **injury-free** in 2022.

The severity of our incidents, measured by our lost-time injury frequency rate (lost workday cases x 1,000,000 / total labor hours), was **1.68+**
2022 Recordable Injuries by Type

We are working to reduce our most frequently occurring injury categories, including the following:

■ **Hand injuries**
  Our hand safety improvement team is charged with determining best practices to reduce the risk of hand injuries. These injuries are frequently related to material handling and the use of hand tools.

■ **Glass-in-hand**
  A team has been working to identify factors that contribute to glass-in-hand injuries. These sliver-like injuries are one of the most common in our Composites plants, and we have worked to implement practices designed to prevent them. We employed the principles of Total Productive Maintenance (TPM) to implement a 10-step quality control plan to reduce glass-in-hand injuries. We also worked with our supplier to improve the protective gloves we use. Through these efforts, we have been able to significantly reduce these injuries.

■ **Slips, trips, and falls**
  Our Insulation business is conducting risk assessments of all walking surfaces and platforms at all facilities and sharing their findings broadly with other sites. All three of our businesses are conducting serious injury and fatality (SIF) assessments as they relate to working from heights.

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**2022 Recordable Injuries by Type**

- **Arms/Hands**: 43%
- **Back/Shoulders**: 20%
- **Head/Face/Eyes**: 17%
- **Legs/Feet**: 16%
- **Multiple/Other**: 4%

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Photo submitted by: Anne Berthereau | Chambéry, France
Pictured with Shaun Ahn and Oli Henrard.
BUILDING ON THE FOUNDERNAL PRINCIPLES OF SAFETY

As we strive to eliminate injury and work-related illness from our workplaces, our efforts are rooted in our evolving understanding of best practices in protecting employees.

Preventing Serious Injuries & Fatalities

Like many other companies around the world, Owens Corning is thinking differently about the best ways to prevent SIF. In our experience, the factors that contribute to SIF incidents are often very different than those that cause more common, minor injuries.

Since 2019, we have tracked incidents with high potential for SIF as a separate category, which helps us focus on less common but potentially more severe hazards. Identifying and eliminating the precursors for these incidents is the best way to reduce all injuries.

This focus on severity also requires us to work to eliminate precursors to SIF, even when no injury has occurred. As safety incidents — both injuries and near misses — are reported and we conduct proactive risk assessments, we evaluate them based on how severe the injuries were or might have been. The results of these risk assessments are utilized to create and prioritize corrective actions to prevent reoccurrence.

Our SIF standards include:

- Automobile safety
- Confined space
- Contractor management
- Electrical safety
- Hot work safety
- Line breaking
- Lock-tag-tray
- Machine guarding
- Powered industrial vehicles
- Warehouse safety
- Working from heights

We have expanded the use of our SIF assessment tool throughout all three of our businesses. These proctored self-assessments coach people through the tool, facilitating reviews and discussions that identify strengths and challenges and serve as a basis for action plans that help ensure improvement over time.

Tragically, in 2022, a vendor’s employee died following an industrial accident at our plant in Yuhang, China. Owens Corning investigated the incident and implemented a process to reduce the likelihood of another incident. No other work-related fatalities occurred in 2022.
Machine Guarding Implementation

Due to the nature of our operations, employees must work with and around industrial equipment. Based on incident reporting and investigations, we recognize that machines represent significant risk potential. Worker exposure to machines was a primary factor in 59% of our 2022 recordable incidents that had SIF potential.

As part of our increasing emphasis on SIF prevention, we have continued to conduct full machine-guarding risk assessments at every location globally. Our first phase of implementation included locations representing different regions, businesses, and facility size, which helped us gain insight into the process and streamline deployment. As we identified improvement opportunities, we created and shared corrective actions.

Our work is leading to improvements throughout our operations. In addition, we now have several employees across our operations who have become certified as machine safety experts, making them better equipped to assess machine guarding. This measure will lead to further benefits in the future.

Risk Assessment & Controls

At Owens Corning, safety risks are ranked based on the following criteria:

- Frequency of exposure
- Potential severity of an injury
- Likelihood of an incident
- Level of controls in place

This risk ranking system helps us prioritize projects, identify resource requirements, and allocate working capital across the company. We also use the system to measure risk reduction at all levels — plant, business unit, and corporate. The measurements enable us to hold leaders accountable for reduction targets and obtain the most risk reduction benefits for the resources allocated.

Risk identification is an ongoing process that includes the following steps:

- Complete a detailed risk assessment prior to each task
- Complete a detailed risk assessment of high-risk conditions within the facility
- Conduct a root cause investigation if an incident occurs
- Develop corrective actions to prevent recurrence of incidents
- Share learnings across the site and between sites, as appropriate

Risk assessments are conducted in new facilities or on new operations within existing facilities to predict and address potential health and safety issues. We are working diligently to prevent new hazards from entering our facilities while also understanding and addressing the risks at new facilities.

We have developed a risk assessment calculator tool that generates a risk score based on the complex relationships between severity and the hierarchy of controls. In addition to traditional risk assessment calculations, which multiply frequency by severity, we implemented a new scoring system that removes frequency from our calculations when evaluating SIF risks. In doing so, we can avoid situations in which a minor but common hazard might be scored higher than one that is more serious but less common. This is consistent with our commitment to SIF prevention.

After identifying a risk, assessors take the following steps:

- The potential severity of the risk is rated as SIF, significant, or minor.
- Each control type is rated according to the assessors’ confidence in their effectiveness. Control types can include passive engineering solutions, warnings, administrative measures, or PPE.
- Each selection is weighted and scored, with one score for the controls, another for severity, and then a total risk score.
- Based on the scores, the risk is categorized as low, acceptable, unacceptable, or dangerous.
If the risk is categorized as unacceptable or dangerous, a mitigation plan is required. When incidents do occur, learning is shared within the businesses after the investigation is complete.

Owens Corning has systems in place to ensure that potential occupational exposure to hazards is recognized, understood, and effectively mitigated throughout our global operations. This is achieved through our comprehensive and rigorous focus on exposure control, as well as a traditional approach to employee health screening where appropriate. As a result, none of our worker groups are associated with a high incidence of occupational disease.

We also work to understand and control exposure to hazards that might cause injury. Safety procedures are in place for specific hazards, including handling chemicals or hazardous substances.

In 2022, the National Business Aviation Association honored our corporate aviation team for achieving 75 years of safe flying. Owens Corning pilots have logged more than 100,000 safe flight hours on company aircraft.

**Using Data to Improve Safety**

Our March to Zero is in many ways driven by data — historical data, current data, and key performance indicators give our safety teams the insights they need to track performance, identify trends, and tap into real-time metrics that help ensure prompt action. We continue to focus on SIF incidents with cross-business review of learnings to facilitate deployment of actions globally.

Integrating data enables us to refine our processes and make decisions with greater efficiency. We will continue to explore new avenues for gaining insights from data and predictive analytics, which we believe will be invaluable as we work to prevent accidents at our sites.

**Insights from Data**

The data we gather has provided a great deal of valuable information. For example, a review of data indicated a high number of injuries to employees in their first 12 months with Owens Corning. Through these insights, we recognized the need to initiate a cross-functional team to develop new safety onboarding and training processes. See the story on page 186 for more information.

In addition to the number of injuries, the data allows us to track other valuable information, such as SIF near-miss frequency rate and the number of days employees are out of work due to injury. Metrics such as these offer a continually updated picture of our safety. The monthly data collection and analysis give local leadership visibility into the changing level of risk, as well as the opportunity to intervene and reduce that risk before an incident occurs. Based on what we learn, we regularly review and update the metrics and scoring system.

Through data mining, exposure reconstruction, statistical analysis, corrective action tracking, and more, we can use incident reporting to generate insights and support the work we do regarding safety standards. For example, the data reflected that machines represent significant risk potential to our employees, which in turn led us to conduct full risk assessments of machine guards at every location globally. Similarly, incidents involving powered industrial vehicles, such as forklifts, are the largest category of near-misses with SIF potential, distinct from recordable injuries. This has led to a focus on finding innovative ways to improve safety related to these vehicles.
Predictive Analytics

The goal is to use current and historical data to predict a rise in the risk factors that can lead to injury before such injuries occur, with enough lead time to take preventive actions that reduce that risk and ultimately prevent injuries before they occur.

As an example, we have been using predictive analytics to develop a mathematical model that can identify the relationship between factories and the risk of injuries. The ability to predict incidents can help plants mitigate their risks, which can serve as an important step in reaching our goal of zero injuries within our facilities.

Owens Corning is working to develop new ways to leverage our data, including the development of scorecards based on leading indicator information. When this is in place, it will enable us to use existing data more effectively without requiring sites to generate information each month.

Preventing Collisions Through Artificial Intelligence

Recently, Owens Corning has been implementing artificial intelligence to help prevent incidents involving powered industrial vehicles — specifically forklifts. By employing (AI) and machine learning in conjunction with our existing camera systems, we can better predict impending collisions between forklifts and fixed objects, other forklifts, and especially pedestrians. The results we are seeing have been encouraging, and we plan to expand this project further.

Virtual Health and Safety Assessments

Virtual assessments came about as a result of COVID-19 restrictions and they have become a more regular part of our process, as the streamlined experience has been beneficial for assessment teams and sites. The process begins when the site answers a series of self-assessment questions related to safety initiatives and protocols. Assessors then review the results prior to an on-site visit, and they check up on a sampling of responses to confirm that the information matches the assessment. This process has led to significant improvements in efficiency, as on-site visits that once took up to a week can be done in a fraction of the time.

In 2022, we reintiated our corporate safety assessment process in the U.S., combining virtual and on-site reviews while still maintaining the overall efficacy of process. This approach to assessments has proven to be successful, and we are beginning the process of piloting and deploying it globally.

Incident Reporting and Investigations

Our policy states that employees are expected to undertake and should feel empowered to require safety training before starting any job or task. As a result, employees are also expected to stop and report unsafe behavior or any work procedure that puts themselves or others at risk.

When an incident does occur, our procedure is as follows:

1. A safety incident occurs (Near miss, first aid, or injury)
2. Care for the needs of the injured or ill employee(s)
3. The incident is reported to plant leaders and the EHS team
4. Owens Corning begins its investigation
5. We record the nature of the incident — what caused it and the actions that were taken.
6. The incident is recorded in our central database.
7. The incident is classified according to its severity or potential severity.
8. All reports are included in our database for further review and analysis.
LEADERSHIP
DEDICATED TO SAFETY

Throughout our operations, the principles of safety are overseen by teams of dedicated professionals around the world. Under their leadership, Owens Corning is diligently working to ensure that we are positioned to achieve our safety aspirations.

Environment, Health, and Safety (EHS) Committees

Our safety goal can only be met through the active engagement of our employees in promoting safety and identifying and reducing the risk of injury. Because tasks vary at different plants, facilities have established a variety of EHS initiatives, and all employees and management are encouraged to take part in them. Every Owens Corning manufacturing location, regardless of size, has an EHS professional on site.

Initiatives include the following:

- Safety committees (joint health and safety committees at select sites)
- Behavior-based safety observation teams
- Hazard recognition teams
- SIF prevention initiatives
- Environmental teams
- Employee wellness teams

Representative safety teams at each plant communicate employee concerns, then review and roll out plant safety programs. The safety team is responsible for communicating plant leadership responses to safety concerns and programs brought through the safety committee. The team is also responsible for sharing best practices at their plant, and they distribute these findings to other facilities by submitting best practices to the enterprise safety website.

This past year, increasing safety-related engagement within our facilities following disruptions related to the COVID-19 pandemic has been a primary focus. We are driving engagement through various committees and teams, as well as through focused improvement events held at our sites.

Sharing Lessons Throughout Our Businesses

Through our SIF tracking and analysis, we’ve learned that many of our most frequent safety incidents are business-specific, while SIF-potential incidents are not. For example, employees in our Composites plants handle glass fiber directly, so safety incidents involving glass fiber are likely to be more frequent than in our Roofing business, where employees do not handle glass fiber as often. Regardless of the business-specific risk level, the potential for SIF incidents exists across all our businesses.

With this in mind, each business’s safety team reviews high-frequency incidents separately, allowing the cross-business team to spend more time reviewing SIF-potential incidents. SIF or SIF-potential cases are reviewed each week by a cross-business team of EHS leaders who share learnings from those incidents within their respective businesses and implement corrective actions to prevent similar occurrences.

At the local level, incidents are reviewed during each shift’s daily meeting. These meetings, which are a regular part of our operations, allow the team to share and discuss topics ranging from plant production metrics to participation in health and wellness activities. The incoming workers are briefed on current working conditions, including safety concerns or investigations that are in progress, and they have the opportunity to ask questions and provide suggestions.

At the enterprise level, we have established several key workstreams on a range of topics, including safety technology, safety training, and data and predictive analytics.

Composites plant, Zele, Belgium.
Occupational Health and Safety Management

Our ambitious safety goal requires participation from every individual affiliated with Owens Corning — employees, contractors, and visitors alike — in our manufacturing facilities, offices, warehouses, laboratories, and other properties. Employees influence health and safety processes and protocols by providing input through:

- Safety teams and committees
- All-plant communication meetings
- Crew meetings
- Shift huddles
- Training teams and sessions
- Subject-specific safety teams or committees
- Hazard reporting

Owens Corning identifies and avoids hazards through qualitative and quantitative surveys and a corrective and preventive action process. Our approach to health and safety uses several tools, including:

- Job hazard analysis and risk assessments
- Structured hazard assessments
- Comprehensive industrial/occupational hygiene assessments and surveys
- Product hazard analysis
- Failure mode and effects analysis
- Permitting processes
- Pre-job hazard analysis
- Stop-Think-Act-Review (STAR) cards

Our collective bargaining agreements contain all these provisions at the local level, as well as procedures for resolving issues that impact workplace safety.

Owens Corning has developed and deployed global safety standards and controls that integrate with our global occupational health and industrial hygiene process. We work to understand, control, and eliminate — whenever possible — the potential for exposure to work-related hazards that pose a risk to employee health.

Exposure potentials are assessed and evaluated against established exposure limits to ensure risk is quantified and understood. This understanding drives efforts in mitigating, reducing, and eliminating these risks. Where exposure can be feasibly eliminated through substitution and engineering controls, those actions are implemented. Where substitution and engineering controls are infeasible, or while such controls are yet to be deployed, interim controls (lower on the hierarchy of control) are used to ensure employees are protected. These often include some combination of administrative controls and personal protective equipment. The following are the primary and most broadly applicable hazards associated with our manufacturing operations that could pose a risk of ill health, and examples of controls we have deployed:

- **Heat stress (potential for heat-related illnesses)**. During seasons of higher than normal temperatures, ambient cooling, where feasible, is coupled with a focus on heat-stress prevention, hydration, PPE, and early mitigation.

- **Use of materials that contain respirable crystalline silica, RCS (potential for silicosis)**. Owens Corning has applied the recent OSHA RCS standard globally, including banned housekeeping practices (per OSHA) and application of RCS Exposure Control Plans (ECP) and ECP controls.

- **Industrial noise (potential for noise-induced hearing loss)**. Owens Corning's hearing conservation efforts are managed continuously under site-specific programs, ensuring all locations align with our global standard to protect employees from the potentially damaging effects of noise exposure and comply with applicable noise requirements. This includes eliminating noise exposure where necessary and requiring use of effective hearing protection. Our industrial hygiene process includes noise exposure assessments at our sites every other year, including employee exposure assessment (noise dosimetry) and area sound level surveys.

Contractors do not have access to any of our nonoccupational employee health benefit programs, including voluntary health promotion services and programs offered to employees to address major personal health risks, as these services and programs are considered a benefit. Occupational health is different, however. Anyone, including contractors, who work at our facilities are protected from occupational injuries via adherence to the same Owens Corning employee safety practices (prevention of injuries) and protection from occupational illnesses via Owens Corning's employee exposure control procedures that safeguard against biological, chemical, and physical hazards.

In 2022, there was one recordable injury related to ill health among Owens Corning employees or our supervised contractors or temporary employees.*
Crisis Management

Owens Corning’s crisis management plan provides a comprehensive framework for responding to a wide range of crises. The plan is a simple, fit-for-purpose process that’s easy to understand and follow, and it aligns with our natural business structure and function.

The plan addresses three primary types of crises:

Emerging Issues

Situations that may threaten the company’s reputation or its organizational, legal, or financial stability. These include:
- Environmental or regulatory concerns
- Product liability
- Leadership or management issues
- Trade restrictions
- Social issues
- Protests and demonstrations
- Theft or loss of intellectual property
- Loss or breach of data privacy

Business Interruptions

Incidents that disrupt manufacturing or other processes essential to the mission of the company. These include:
- Critical utility outages
- IT system failures and disruptions
- Labor action or strikes

Emergencies

Incidents that threaten human life, safety, health, property, or the environment. These include:
- Workplace violence
- Natural disasters
- Terrorism
- Chemical/environmental spills or hazards
- Kidnapping and ransom
- Fire and explosion
- Widespread disease outbreak

Owens Corning uses a Send Word Now process to initiate a conference call for relevant parties to connect in the moment to support a response to a crisis.

Emergency Preparedness Procedures

The emergency response standard applies to all facilities and worksites where Owens Corning has management control. An emergency is defined as a serious, unexpected, and often dangerous event that poses an immediate risk to health, life, property, or environment, and which requires a coordinated and rapid response.

Emergencies are typically handled at the local level. If any of our employees are assigned to a site where we do not have management control, Owens Corning conducts a safety review of that site, including emergency procedures. As with all safety matters, our employees are instructed to speak up if they feel their work environment isn’t safe.

In addition, our emergency response standard requires that each location conduct an assessment to identify potential emergencies that are reasonably foreseeable or credible for their location, taking into consideration a list of emergency scenarios such as fire and explosions, weather emergencies and natural disasters, spills, violence, utility failures, and more. That assessment is documented and used to evaluate internal and external emergency response capabilities. The assessment is also reviewed annually, as operational or organizational changes occur, or following an incident.

Each Owens Corning facility has an Emergency Response Team (ERT) that is prepared for and can respond to a local emergency, such as a natural disaster or an interruption of business operations. Specific employee assignments are required for different scenarios, and each site’s plan must include employee training to ensure a safe and orderly evacuation, as well as developing procedures for employees who stay behind to conduct critical plant operations before they evacuate. Drills, inspections, and testing protocols ensure that the emergency response plan and equipment are adequate.

Each site also has a specific Emergency Response Plan (ERP) that addresses all emergency scenarios identified as reasonably foreseeable or credible. At minimum, each site’s ERP must address the following emergency scenarios:
- Medical emergencies
- Environmental spills/releases
- Fire/explosions
- Bomb threats
- Suspicious packages/devices

Our emergency lockdown guidelines provide Owens Corning plants with information needed in the event of an active assailant on the premises, workplace violence, or unrest — anything that threatens employees in the workplace and would require an immediate shutdown of the plant while keeping the people on-site safe.
In 2022, an updated emergency preparedness standard was developed, with rollout taking place in 2023. This latest standard uses risk assessment to determine the types of incidents that are most likely to occur, based on a site’s location and operations, and outlines the appropriate emergency response.

**Developing and Sharing Action Plans**

Each site develops action plans to eliminate or reduce its top risks.

- Internal teams conduct site assessments that contribute to the enterprise risk management assessments completed for the audit committee and the board of directors.
- Business unit managers regularly discuss work-related risks.
- These discussions are then shared among our EHS teams, the executive management team, and the board of directors on a quarterly basis, resulting in additional action plans for the entire organization.
- Quarterly formal business-unit reviews of our safety model are then used to develop a continuous improvement program.
- Our regional leaders conduct periodic plant inspections and provide support and growth opportunities to each of their plants. In some cases, regional leaders collaborate across divisions to help eliminate hazards.
- The EHS assessment team thoroughly reviews EHS processes at each site, typically on a four- to five-year cycle. We review the list of sites regularly and schedule assessments based on the time elapsed since their last assessment (or sites that have not yet been assessed), site risk, and special requests from the businesses.

When required by our customers, we also obtain third-party safety certifications, such as OHSAS 18001/ISO 45001, which cover approximately 25% of our sites. Our global safety and environmental organization verifies and documents the status of management systems during scheduled audits. After assessments are completed, we obtain a published report. All items identified for improvement in the report are incorporated into the facility improvement plan. Critical items are called out and directed to the vice presidents of sustainability and operations for review, and to senior EHS leaders for further action.

**Partnerships in Safety**

Owens Corning is fully engaged with our industry partners to help influence safety and regulatory standards. This commitment has a global impact and reinforces our position as a leader in safety. Through our active involvement and leadership in trade associations’ industrial hygiene or safety committees, we provide our industry with occupational-exposure monitoring data to aid in evaluating the potential impacts of regulatory activity and framing trade association input to developing standards. For decades, Owens Corning has been conducting regular industrial hygiene monitoring to assess and quantify the risks our employees may be exposed to and ensure that exposure is controlled to safe levels.

We also participate in the Industrial Hygiene/Occupational Health committees that exist independently as part of both the Asphalt Roofing Manufacturers Association (ARMA) and the North American Insulation Manufacturers Association (NAIMA). We are one of the leading contributors of data to those associations. The aggregate data is used in trade association efforts to represent Owens Corning and our industry in rule-making and, through published articles, serve as a source of information to the industry customer base and the scientific community. The committees help define protocols for data collection and maintain data sets that our customers, contractors, and installers rely on in their everyday operations.

**OSHA VPP Star Certification**

The Occupational Safety and Health Administration’s (OSHA) Voluntary Protection Programs (VPP) recognize the health and safety accomplishments of companies and organizations whose injury and illness rates are below Bureau of Labor Statistics averages for their respective industries. Eleven Owens Corning sites have received VPP Star certification, OSHA’s highest level of recognition. Plants undergo a rigorous on-site evaluation by a team of OSHA safety and health professionals to earn this certification.

**The Campbell Institute**

Owens Corning has been an active member of the National Safety Council (NSC) since 1943, and we are a charter member of the NSC’s Center for Excellence, the Campbell Institute. Many representatives of our company serve on steering teams, working groups, and advisory committees. Since 2021, Owens Corning has been a member of the NSC’s SAFER (Safe Actions for Employee Returns) Task Force, which provided resources for businesses as COVID-19 lockdowns began to ease and on-site work resumed. In addition, we are active with the American Society of Safety Professionals, the Voluntary Protection Programs Participants’ Association (VPPPA), and other organizations that promote safety solutions.
TRAINING & EMPOWERING EMPLOYEES FOR SAFETY

Across Owens Corning facilities, our people are given the training they need to perform their duties safely. We encourage our employees and contractors to take an active role in making their workplaces as safe as possible. Employees are required to stop and report unsafe behavior that puts themselves or others at risk. They are also required to report any work procedure that requires them to work unsafely and insist that it is changed.

Safety Training

Safety training begins with Owens Corning’s new-hire orientation, with a mentoring process designed to help reduce injuries among individuals who are either new to Owens Corning or new to their position. When the onboarding process described above is deployed, it will also be part of training from the outset of an employee’s time with us. Training continues throughout an employee’s tenure, with activities such as daily safety huddles, scheduled monthly sessions, and annual refresher courses.

All employees receive regularly conducted training on employee health and safety standards. We develop an annual training matrix, and our facilities use a web-based platform with standard training modules through our global corporate intranet. Those are supplemented by site-specific education. This system is fully integrated with our talent management structure and provides the ability to customize learning plans for individuals.

Global EHS professionals involved in our safety programs receive advanced safety training. Our EHS Skill Building events are one-hour sessions that allow our EHS leaders to gain additional, practical, state-of-the-art knowledge on specific topics. We host periodic meetings with our EHS leaders to review strategies, share best practices, and provide technical training.

Our in-depth training covers a diverse array of topics, including:

- Proper fall-protection strategies
- Ergonomics
- Incident investigation

ONBOARDING EMPLOYEES WITH SAFETY IN MIND

According to the safety data we have gathered, there is a need to focus our EHS training on employees with one year or less of experience. We have found that the percentage of employees in this category has had a larger impact on recordable injuries and other safety incidents than in previous years. With this in mind, we are creating a new EHS onboarding experience across Owens Corning, which we expect to begin deploying in 2023.

The primary objective of the onboarding experience is to provide consistent, comprehensive safety and on-the-job training, helping new employees perform their tasks safely from the very beginning of their time with us. This experience is being developed after a review of best practices, as well as insights from EHS professionals, site leaders, new employees, and existing onboarding programs supplied by consultants. From there, we used a test and learn approach to ensure the program’s overall effectiveness.

One element of the new onboarding experience involves training employees on human performance indicators, including task demand, individual capability, work environment, and human nature. This offers a more comprehensive approach, as it addresses all potential errors and offers a better understanding of the various types of incidents and losses. For example, we have created an audit system for plants to identify human performance factors related to new-hire safety and respond with appropriate programming, training, and coaching initiatives. These improvements draw from internal best practices and a range of external sources, such as the U.S. Department of Energy.

We believe that this new training can result in a reduction in injuries among employees with one year of experience or less, and it can benefit more experienced employees as well as it helps foster a culture of safety that features a deeper knowledge among all our employees. By creating a work environment where people understand the “why” as well as the “what,” we intend to ensure safety, improve retention, and provide a better experience for our employees everywhere.
Hazard Recognition and Control (HRC) Programs

Spotting hazards is a learned skill, and the HRC program teaches employees to break the human tendency to overlook familiar objects and situations, which can cause people to miss risks. Through the program, employees learn specific techniques to identify hazards, quantify risks, and develop effective ways to minimize or eliminate them. Traditionally, HRC training has been conducted at plants and in classroom settings. COVID-19 restrictions made it necessary to develop online training, and our program remains a hybrid of on-site and virtual training. To date, over 1,244 employees around the world have received HRC certification, including 130 in 2022.

This year, Owens Corning partnered with a third-party company to develop the technology necessary to begin providing HRC training using online training and virtual reality tools. We were able to combine the two forms of HRC training into one package that condenses approximately eight hours of classroom training into two hours. We piloted the training at our site in Amarillo, Texas, U.S., for employees who were already certified as HRC specialists and others who had not received the training, and the response has been overwhelmingly positive. The training is now available in English, Spanish, and Portuguese.

VR-Based Lock-Tag-Try Training

In addition to our virtual HRC training, we have also piloted VR-based lock-tag-try training at our plant in Amarillo, and we intend to implement this training at other sites as our capacities expand. Lock-tag-try, also known as “lockout, tagout,” is a procedure that ensures power to a machine is cut off before maintenance can occur. This training helps ensure that employees not only understand lock-tag-try, but gain the skills needed for reading, understanding, and demonstrating the use of the lock-tag-try machine postings using the VR exercises and receive coaching where needed. In 2020, the training became available on the Owens Corning intranet.

Composites plant, Gastonia, North Carolina, U.S.

Contractor Safety Handbook

In addition to ensuring safety among our employees, we are equally committed to the safety of contractors working with our company. All contractors receive a Contractor Safety Handbook, and it is their duty to ensure they are aware of and current with EHS laws as well as Owens Corning policies and expectations. Owens Corning also provides training to ensure that contractors understand that their commitment to working safely must be unconditional. This handbook has been translated from English into 17 languages.

Workplace Violence Training

Owens Corning has set a standard whereby all people leaders and staff globally are required to undergo workplace violence training. In 2022, we achieved a compliance rate of 91%. Training is available through our learning management system or in a classroom setting. Primary employees typically receive classroom training.

In March 2022, our world headquarters hosted a drill in which the Toledo Police Department and the Owens Corning security team held a series of mock active assailant response exercises. In addition to training police, the drill gave security team members an opportunity to practice their response to potential workplace violence situations. The training took place on a Saturday, and the building was closed to employees.

Crucial health and safety procedures are provided in local languages to ensure all employees have access to information that can help prevent injuries and potentially save lives.
In its annual Accident Prevention Contest, the Asphalt Roofing Manufacturers Association (ARMA) honored several Owens Corning plants across the U.S. The contest recognizes asphalt roofing manufacturer facilities for their workplace safety, specifically low incident rates among workers. Most notably, our shingle plant in Kearny, New Jersey, U.S., earned the ARMA President's Award, which goes to the plant with the best score in each contest category over a two-year period.

The following plants received an Award of Excellence, earning three consecutive perfect scores. While these sites were not included in the President's Award, they also had zero safety recordable incidents.

- Atlanta, Georgia (asphalt)
- Irving, Texas (asphalt)
- Jacksonville, Florida (asphalt)
- Portland, Oregon (asphalt)
- Minneapolis, Minnesota (asphalt)

The following facilities earned awards for a perfect score last year:

- Atlanta, Georgia (shingles and asphalt)
- Denver, Colorado (asphalt)
- Irving, Texas (asphalt)
- Jacksonville, Florida (asphalt)
- Portland, Oregon (asphalt)
- Memphis, Tennessee (asphalt)
- Minneapolis, Minnesota (asphalt)
- Summit, Illinois (asphalt)

Facilities that entered the 2021 Accident Prevention Contest were judged based on ARMA criteria derived from the standards set by the U.S. OSHA. This information is gathered through quarterly safety data reports from the past calendar year.

Empowering Employees for Safety

**Total Productive Maintenance**

Owens Corning uses the TPM management system to improve manufacturing productivity. TPM is a mindset that empowers all employees to proactively address issues that can cause losses. TPM works hand in hand with advanced manufacturing and process excellence to deliver world-class manufacturing performance in support of Owens Corning's growth strategy.

Owens Corning is working to leverage TPM to strengthen our safety culture across the company. We have assigned a senior EHS leader to each enterprise-wide TPM pillar team, so the safety perspective is built into each of the pillars. We are building EHS into the phase-gate approval process, using TPM's Early Management pillar to standardize the way safety is incorporated into new projects. As employees in the plants perform their daily work, for example, they are constantly monitoring the equipment and the environment for indications that maintenance or other intervention is needed. With TPM, all employees are accountable for identifying developing hazards. This improves efficiency in our operations, as well as safety for our people.

One example of a TPM-driven practice is safety tagging.

- Equipment is inspected and audited.
- Tags are placed where safety issues are spotted, making them immediately apparent.
- Open tags can be tracked to completion, ensuring that issues are resolved.

One recent example of a safety-based TPM initiative is centered on hand safety. Since approximately one-third of incidents across all three businesses affect employees’ hands, focused improvement sessions are running across sites to determine causes for hand injury issues and develop plans to mitigate risk going forward. For more information on TPM, see page 18.
SPEAKING OF SUSTAINABILITY

Gustavo Cavini
Plant Leader, Rio Claro, Brazil

Throughout his career, Gustavo Cavini has taken an active role in promoting safety wherever he works. Previously, he has worked as a safety manager, where he became very familiar with safety laws and regulations in his region. Upon arriving at Owens Corning nearly five years ago, Gustavo began applying his in-depth expertise to the global reinforcements plant in Rio Claro, Brazil. In his new role as plant leader, Gustavo continues to make safety central to the facility's operations, and his dedication to the people who work with him every day comes through as he discusses the importance of maintaining a safe work environment.

On defining safety within the Owens Corning culture

Safety is a value, not a priority. Priorities can change every day or every month, but we always keep safety first in everything we do at the plant. At the Rio Claro plant, in our daily management, we have several meetings and huddles. We start each meeting talking about the safety results of the last day — the risks that we identified and the near misses that we had — and we discuss an action plan to treat them and avoid new occurrences. So regardless of the subject of the meeting, we start by talking about safety. Owens Corning treats safety as a value too. The importance of safety at Owens Corning starts from our leadership. We have all the resources we need here because our leadership team understands safety as a value.

On integrating TPM into our safety protocols

TPM offers a good methodology for how we need to perform our work. TPM brings us a lot of standards and controls needed to keep our performance and maintain our safety. For example, TPM has an important tool called safety tags, which we train everybody on. Everybody is responsible for identifying any kind of issue any kind of risk that they have in their areas. As a plant leader, I need to give everybody the resources to solve the tags and eliminate the risks. TPM's focused improvement approach is important to investigate an incident or to investigate an unsafe act and safety behavior. We need to stratify the data in order to eliminate the root causes.

On why safety truly matters

When we talk about safety, we are talking about people's lives. We cannot look at safety without looking at people. Here in the global reinforcements plant, I am responsible for 420 people. That's 420 families that are expecting their family member to come back home when they start off to work each day. So, safety for me is about people. I love to work with people and give them what they need to do their work safely. The rest — their performance, their efficiency, the quality of the product — is a consequence of a person feeling safe in their daily work.

“Safety is not just an EHS responsibility — it's everybody's responsibility. As a plant leader, I need to give everyone the resources needed to eliminate risks.”

Photo courtesy of Gustavo Cavini.
Safety at Non-Owens Corning Sites

Employees who are assigned to work at facilities not controlled by Owens Corning assess the risk of their tasks and in the general work environment. If the level of risk is not acceptable, they will discontinue their activities until risk-mitigating actions are completed by the owner of the facility. If necessary, our EHS personnel visit these facilities to assist with risk assessment and help develop risk mitigation strategies in partnership with the site owners. By empowering our staff to take action for their own safety, Owens Corning ensures that our employees are safe no matter where they are, and they can model good safety practices for others.

Contractor Management

Contractors in our facilities are expected to adhere to the same safety standards as Owens Corning employees. To ensure their compliance and understanding of the required standards, Owens Corning makes available appropriate safety trainings to contractors and their employees. Additionally, we partner with our contractors to conduct behavior-based observations, walkthrough inspections, and audits to ensure the continued health and safety of our workplace. We also have consistent processes for prequalifying and measuring contractor performance associated with large-scale projects within our facilities, and for contractors we directly manage. Our Contractor Management Standard establishes the minimum requirements to prequalify, select, orient, monitor, and evaluate contractors who perform higher-risk work at Owens Corning sites globally.

To enhance and streamline the process of verifying that contractors are compliant with Owens Corning standards, we use ISN’s platform ISNetworld to facilitate the establishment and management of contractor qualification requirements. As part of Owens Corning’s ISN process, contractors must submit their applicable SIF prevention processes for review to determine if they meet minimum expectations for working at an Owens Corning facility. If it is determined that they do not meet expectations, the contractor is provided with feedback so they can strengthen their programs for resubmittal and reconsideration. Additionally, any contractor company that has had a fatality within the last three years is automatically eliminated from consideration for work at an Owens Corning facility until they submit acceptable information detailing how the fatality occurred and what actions were taken to prevent this or similar events in the future.

Through the program, over 4,097 individual safety programs have been reviewed, and in 2022, 3,047 insurance certificates were reviewed. This work helps us understand gaps and standardize how we manage risk when working with our contractors. It ensures that all contractors performing work with moderate or high SIF potential at Owens Corning sites around the world have been verified to our standards through an external party.

We are developing an internal contractor selection system that all sites not currently using ISNetworld will be expected to use. This will be piloted at multiple sites in Europe in 2023 with full European deployment in 2024 followed by Asia Pacific and South America.

NATIONAL SAFETY WEEK AT TALOJA & SILVASSA

In India, National Safety Week has been a countrywide campaign for 50 years. For one week in early March, a wide range of industries and organizations come together to increase safety awareness and reduce accidents. In Taloja and Silvassa (including Dapada and Sayli), leadership teams, contractors, employees, and their families joined the campaign, which was themed “Nurture Young Minds, Develop Safety Culture.”

The National Safety Week events included safety Kaizens in the form of TPM-based Focused Improvement projects, a PPE exhibition, a safety knowledge quiz, a skit competition, and more. In addition, the Taloja team reached out to a nearby community school to educate students about safety and invited them to participate in a poster and slogan competition.

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Cell Phone Policy
The ubiquity of cell phones continues to present a safety issue, and countless studies have shown the extent to which cell phone users are distracted. Whether our employees are busy in production work areas, taking the stairs in our facilities, or walking or driving in parking lots, we have very specific rules about the use of cell phones.

We instituted a ban on the use of cell phones in our sites’ parking lots, and when driving as part of company business, as far back as 2012. At most sites, signs about cell phone use are posted at strategic locations so that employees are reminded that these are safety rules, not mere suggestions, and that every individual is responsible for ensuring we are successful in our efforts toward zero injuries.

MAINTAINING SAFE SITES IN CHANGING TIMES
The challenges inherent in our current employment climate have special ramifications when it comes to safety. A significant percentage of recordable incidents in recent years have occurred among individuals in their first three years of employment, with many of those occurring in the first 12 months. Accordingly, making sure that employees are grounded in the principles of safety right from the onboarding process has become a top priority at Owens Corning, and we expect it to remain so for the time being.

The COVID-19 pandemic demonstrated the importance of pivoting to new technologies that enable us to maintain safety initiatives virtually. This knowledge has been and will continue to be beneficial as we work toward our safety goals. Having emerged from the COVID-19 restrictions, we greatly appreciate the ability to work together in person toward our aspirations. The EHS summit in October — held in person for the first time since before the pandemic — was emblematic of our hybrid approach to implementing and assessing safety initiatives. By combining the efficiency of virtual programming with the ingenuity that results from face-to-face collaboration, we can engineer the solutions that will propel us further on our March to Zero.
In recent years, people everywhere have been placing an even greater priority on their health and wellness. At Owens Corning, our employees’ well-being has always been our top priority. As we work to improve our people’s quality of life, we have established a wide range of initiatives designed to help people better understand their health and make the decisions that will help them lead better lives. We provide all-encompassing wellness support for our employees, based on the hope of delivering better outcomes for people’s physical health, their mental and emotional health, and their financial well-being.

Our programs seek to help employees reduce the critical risk factors that lead to the most common lifestyle-related diseases, such as discouraging tobacco usage and providing age-appropriate cancer screenings. In doing so, we hope to encourage our people to share their commitment to healthier lifestyles with their family, friends, and communities.

Photos submitted by:
Top:  
Dr. Bhalchandra Pedhambkar | Taloja, India  
Taloja employees at the 2022 Healthy Living Award presentation.

Bottom:  
Shanghai, China  
Shanghai employees recognized for their participation in the office’s wellness plan.

Our commitment to health and wellness is truly a global effort. Owens Corning sites around the world are participating in initiatives aimed at improving their employees’ well-being, including our Healthy Living Awards competition. Learn more about this worldwide success on page 203.
2030 GOALS FOR HEALTH & WELLNESS

By 2030, we aspire to eliminate all lifestyle-induced disease and enable the best possible quality of life — where people flourish and are healthier because they work for Owens Corning.

While complying with privacy laws and local expectations, we will use accessible data, as well as health and behavioral science, to define metrics that will inform our strategies and tactics and help us achieve our goals. As we work toward our 2030 goals, we measure aggregate employee health outcomes guided by the frameworks established by U.S. Healthy People 2030, as well as the WHO Global Action Plan. Each framework is based on indicators that measure both health risks and the burden of disease around the world.

Because the workplace environment is critical to achieving good employee health outcomes, we will also focus on maximizing our abilities within each facility for every employee to achieve their best state of health. We have created a roadmap to excellence for our facilities to help them achieve this goal, and a way for them to gauge where they are along their journey. This will be accomplished via our new Health Goals Matrix. We will integrate our Healthy Living Program objectives at each facility into our corporate operations management system, Total Productive Maintenance, which will lead to sustained program progress and continuous improvement.

Photo submitted by:

Cecile Bourget | Chambéry, France
Employees participating in the Owens Corning 5K Walk.
Our approach to health and wellness builds on six key pillars, each of which addresses a specific element of overall well-being.

### 1. Know Your Numbers

We will enable all Owens Corning employees and their families to obtain their age-appropriate preventive health screenings and immunizations annually and understand the health consequences related to their personal biometric health numbers.

To help our employees achieve optimal health, biometric screenings are available to all employees and their covered dependents at no cost. Employees can receive screenings at on-site events in the U.S. and several global locations, with their personal physician using preventive care benefits, and through third-party labs in their local communities. These screenings help employees and their families learn whether or not they are achieving their age-appropriate health targets, understand the health consequences related to their personal biometric numbers, and discover actions they can take as needed. We also offer a wide array of free, age-based preventive care screenings to employees and covered family members. In partnership with healthcare provider ProMedica, we provide on-site care and biometric screenings at several Ohio, U.S., locations, including our world headquarters in Toledo, our Science & Technology Center in Granville, and our insulation manufacturing facility in Newark. The collaboration with ProMedica allows employees to easily access care providers, establish a primary care physician, and schedule appropriate age-related services.

In 2022, to encourage our employees to get biometric screenings and receive necessary preventive care, we have focused on helping employees locate a primary care physician. U.S. employees can reach out to our higher-level concierge service through Aetna. We also offer biometric screening kits to our employees who work from home offices away from our facilities. In addition, site leaders at nearly all U.S. locations have established goals that they will measure progress throughout the year. This includes financial health goals and objectives related to mental health.

### 2. Healthy Mind

We aspire to help all Owens Corning employees enjoy meaningful work and life experiences in an environment that supports and inspires them. It’s everybody’s responsibility, especially our leaders’, to foster that supportive and inspiring workplace.

Balancing the demands of a fulfilling career and personal life can be challenging. To help our employees be better at work and at home, we offer broad, comprehensive counseling through the Employee Assistance Program (EAP). The EAP is available to our employees around the world, helping them and their families cope with challenges that could affect their health, their relationships, or their effectiveness and safety on the job. Services are confidential, and counseling sessions are free of charge for up to eight visits.

Sessions can be conducted face-to-face or virtually and cover a range of topics, including:

- Traditional counseling services for issues such as stress management, depression, grief, or addiction
- Work/life integration challenges, including child and elder care, home repair, or adoption
- Financial and legal advice, such as college funding, creating wills and trusts, and credit score management

In addition to counseling sessions, our EAP team has worked with our inclusion and diversity team and our mental health care provider to create the Healthy Mind Toolkit. This toolkit is designed to encourage employees to help themselves, their colleagues, and their loved ones assess and address their mental and emotional concerns.

The EAP platform is also available in a mobile application: the iConnectYou app. This app instantly connects employees with professionals 24 hours a day, 365 days a year. Those professionals can guide users to programs designed to help with work and life stresses, mental health, financial and legal solutions, and tobacco cessation. Through the app, employees can contact EAP professionals to find resources and make appointments. They can also access videos, articles, and other self-help resources to guide them through life stressors.
3. Physical Activity
We will enable all Owens Corning employees and their families to be active and to counter the negative health consequences of low physical activity and lack of movement on and off the job.

We educate our employees about the benefits of physical activity and give them access to tools, resources, and incentives that promote daily movement. Several facilities have an on-site fitness center, offer physical training, and sponsor fitness challenges, such as run/walks. In addition, employees earn points by recording their steps, sleep, workouts, and other health metrics through our Healthy Living mobile platform.

4. Nutrition
We aspire to help all Owens Corning employees and their families eliminate key health risks that result from poor nutritional education and unhealthy food choices.

Unhealthy food choices can lead to serious health risks. Owens Corning aims to help employees eliminate those risks by providing nutritional education. Many of our U.S. locations now offer fresh fruit and vegetables to all employees free of charge. In addition, many locations have eliminated vending machines in favor of open-kiosk markets that provide fresh, healthy meals and snacks.

5. Tobacco-Free
We aspire to be a company that helps our employees and their families lead tobacco-free lives.

Owens Corning offers many resources to help our employees become tobacco free, including on-site group coaching, small group discussions, nicotine replacement therapy, and medication. We are approaching our goal of our sites being 100% tobacco free. As of the end of 2022, 99% of our employees work in tobacco-free facilities.

Owens Corning acquired a number of new sites in 2022, and consistent with our aspirations, we will work to make those sites tobacco free in the next 12 to 24 months. In addition, a number of our sites participated in World No Tobacco Day and used the opportunity to encourage employees to learn more about the Kick It! program, which offers information, coaching, and guidance to help employees beat their addiction to smoking or tobacco use.

6. Financial Health
We will help our employees confidently manage their financial lives today, while preparing for the future and dealing with the unexpected.

We seek to raise awareness of company financial benefits available to our employees. This includes planning tools and resources such as financial, legal, and retirement counseling through our external partners, and the implementation of site visits and online tools with banking partners in our plant communities.

Owens Corning has established a dashboard that measures the extent to which people are taking advantage of our financial health services, including health savings accounts. By collecting aggregate data on this information, we can provide education as needed to help promote these services.

PROMOTING HEALTHY MINDS THROUGH EAP NAVIGATORS
Throughout society and in workplaces around the world, the stigmas surrounding issues related to mental health are gradually being broken down, and people are coming to understand that a healthy mind is integral to overall well-being. Owens Corning’s EAP offers our people resources to help them prioritize their mental health.

To encourage those in need to connect with our mental health resources, Owens Corning has created a network of EAP Navigators — Owens Corning employees who voluntarily offer support for peers who may be in crisis. EAP Navigators are passionate about promoting the EAP and helping their colleagues better understand the mental health benefits we offer. EAP Navigators are not licensed mental health professionals and do not give medical or clinical advice. However, they are trained on the EAP and certified in Mental Health First Aid™, which helps them recognize depression and mood disorders, anxiety disorders, trauma, psychosis, and substance use disorders. EAP Navigator training also covers risk factors for mental health and substance use problems, experiential activities that build understanding of the impact of mental illness on individuals and families, and action plans that participants can use when responding to crisis and non-crisis situations.

In 2022, we worked to expand the program, with a goal of having one EAP Navigator at each U.S. location, as well as a one EAP Navigator for each global region. We offer monthly touch-base meetings, in which EAP Navigators are able to connect and continue their education and training. We also continue to align our mental health priorities with our inclusion and diversity initiatives through a series of Courageous Conversations. Read more about Courageous Conversations on page 229.
AN INFRASTRUCTURE OF HEALTH AT OWENS CORNING

Owens Corning recognizes that by creating a culture that emphasizes employees’ well-being, we can help our people prioritize health and wellness in their own lives. Throughout the organization, we have developed a range of teams dedicated to promoting these topics to our employees.

Champion Network
Owens Corning’s Champion Network consists of individuals at our facilities who work to ensure that our Healthy Living platform is locally driven and has broad corporate support. Wellness champions are always looking for ways to engage employees about their health and increase participation in our programs. These champions are also able to encourage more individuals to join the champion network, expanding our influence at more locations.

We have invested significantly in training local wellness teams and wellness champions to help support our programs. In 2022, we trained 30 new wellness champions, and we now have wellness teams in the U.S., Canada, Latin America, Europe, and Asia Pacific. We also worked with our regional wellness leads to establish a network of 80 international champions.

This training includes the principles of Total Productive Maintenance (TPM), and we have the support of regional TPM leaders, who help drive this work. Because TPM is a mindset that empowers individuals to contribute to continuous improvement, Owens Corning has found that the principles of TPM are also applicable to our Healthy Living initiatives. Although Healthy Living pillars are important to people individually, we can drive continuous improvement by making the pillars central to discussions within our plants. We have worked to expand this approach to plants and regions around the world whenever possible.

Our sites in different countries and regions adopt their own wellness goals and aspirations, so activities and focus areas align with their employees’ needs and realities. We created teams that include leaders from global business and corporate function groups, as well as regional leadership councils, to direct the execution of our global wellness strategy in each region.

Wellness champions have the most impact when they have support from leadership, and that engagement is a core part of our overall approach to health and wellness. Materials to support activities planned for each pillar are available to wellness champions so they can successfully engage employees and teams.

Wellness Leadership Council
To help drive the success of our healthy living programs — and enhance the well-being of our entire global workforce — Owens Corning has established a Wellness Leadership Council (WLC) made up of leaders from our human resources, sustainability, operations, and communications teams.

The WLC provides guidance and direction for global wellness strategies and facilitates the implementation of key initiatives through the authorization of resources. In addition, they assist in the recruitment of key operations leaders to serve on Healthy Living Aspiration Teams and support and measure their performance.

Healthy Living Aspiration Teams
To help support the six pillars, Owens Corning has established Healthy Living Aspiration Teams. Each team is led by a plant leader and supported by human resources, EHS (environmental, health, and safety), occupational health, benefits, and other key resources from each of our businesses. The teams ensure that healthy living goals align with their respective pillar and have a positive impact on all employees. The aspiration teams have led us through the development of tools and resources used in operations, including the Healthy Living Critical 6 (pillar score management tool), Power BI dashboards, and the integration of wellness into TPM at the local level.
Regan Mattison has been a registered nurse for over 25 years. For the last eight, she served as an occupational health nurse for Owens Corning, based out of our facility in Delmar, New York, U.S., and has also worked with several other U.S. sites. In particular, Regan is working to integrate Total Productive Maintenance (TPM) into our wellness initiatives, using the principles of focused improvement to increase awareness and participation among Owens Corning employees. Although Regan moved into a new role within the Corporate Health Services group in 2023, she remains passionate about ensuring that Owens Corning is helping people lead healthier lives.

On the benefits of incorporating TPM into wellness

We have taken the plan-do-check-act aspect of TPM, where determine where we’re starting, and then ask how we can make it better. We need to have a goal, and we can’t just pull it out of our hat. Our 2023 leadership goals and wellness award criteria allowed us to set up key activity indicators and validate that we are meeting our goals. Our biometrics program was a perfect example. A very large percentage our employees completed this program, and by using TPM, we can learn how to get an even larger percentage to participate. I think people are doing TPM and they don’t even know it. If you’re trying to make something better, you’re already doing it. By going through the TPM process, you’re putting words to what you’re doing to develop a master plan.

On Owens Corning’s recognition of the role of nurses

I compare my career as a nurse to a house. Going to school was my foundation, and with each experience, I build a floor on top of that foundation. I think Owens Corning sees the value of our expertise and knowledge within the nursing field, and how we can have an impact in preventing injuries and preventing occupational exposures to hazardous substances. Wellness initiatives are a big part of what we do, too — we are really great advocates for these programs, and I think that Owens Corning values that.

On increasing participation in employee wellness programs

It’s like the saying from the movie “Field of Dreams”: If you build it, they will come. If we build what employees want, they’re going to come to it. The way to get employees to participate is to find what works for them. It’s important to spread the word, offer fun events, and find things people want to participate in. We’ve always had the model where wellness takes place outside in the hall. It’s fairly convenient, but what’s even more convenient is walking up to them on the line with some information or a free item. The most important thing when you’re talking about personal wellness is that you have to keep trying different things.
USING DATA TO PROMOTE BETTER HEALTH

Our understanding of employee health and wellness is informed by the aggregated employee data we collect. This data is obtained from participation in voluntary wellness programs and through claims data from U.S. employee health plans. All data used for health trend analysis are de-identified and obtained in the aggregate to safeguard employee privacy. Employee privacy expectations, as well as cultural differences and sensitivities regarding health and well-being, impact the availability of comprehensive aggregate health data. However, as a U.S.-based company with a historical focus on employee wellness, we have built a solid foundation for developing key health metrics, based on the aggregate data from our U.S. employees. Through this data, we gain a deeper understanding of potential health risks, which in turn helps us offer services that are truly beneficial.

The early analysis of this aggregate data helps us connect participation in our wellness programs to improved health measures. Knowing which programs make a difference for our employees in the U.S. helps us ensure that our entire global workforce has access to those same tools. We are working to establish metrics that fully represent the needs of all our employees globally.

Healthy Living Platform

Our Healthy Living digital platform has refined our approach and helped our employees improve their healthy habits. Through a website and a mobile app, the platform links thousands of employees to our wellness resources, facilitating a culture of well-being as individuals track their progress and receive daily reminders about their fitness goals. By combining coaching, interactive health risk assessments and biometric screenings, and incentives and rewards, we go beyond occupational health and place a stronger focus on their everyday physical, emotional, financial, and mental well-being — resulting in improved health, productivity, and happiness.

In addition to tracking steps, movement, weight, and eating habits, employees can track their heart rate and sleep, and that information is sent directly to the platform. The sleep tool tracks the amount and quality of sleep and the type of sleep pattern, such as rapid eye movement (REM). This information helps individuals monitor the effects of health-habit choices.

The Healthy Living platform makes it easier for employees to take part in many of our health and wellness initiatives. It also provides us with opportunities to offer a range of incentives for enrollment and participation, including cash and other rewards based on employees’ daily activities. When users record their steps or track healthy eating habits, for example, they receive points, which can be redeemed for rewards. Employees who track their steps can also participate in a walking challenge and are eligible for weekly prizes. One of the more popular financial incentives allows employees on U.S. health plans to make contributions directly into their health savings accounts. Through these incentives, we have also visibly tied our Healthy Living platform to our employee benefits program.

To further reinforce our commitment to the sixth pillar — promoting financial health — we have added a tab to the platform’s dashboard that enables users to track contribution levels to their health savings accounts and 401(k) accounts.

Our Healthy Living program started in the U.S., and we have increased our international engagement in Latin America, Europe, and Asia Pacific. All three regions are creating regionally appropriate, fit-for-purpose systems parallel to those we have in the U.S. to drive achievement in the six pillars.

Photo submitted by: Brigitte Lacroix | Tessenderlo, Belgium
Employees participating in a lunchtime yoga session at the Tessenderlo FOAMGLAS® plant.
HEALTHY LIVING
SUCCESS STORIES

Katrina McBride
Developing healthier diet and exercise habits is essential to healthy living, and consistency is key when it comes to making those habits stick. That’s why Katrina McBride, a training and development coordinator at our roofing plant in Memphis, Tennessee, U.S., began taking proactive measures to lower her weight and blood pressure. She started working with a coach, tracking her calories, and using the mobile app to track her steps. “I started to be mindful of the number of calories and salt in my diet,” she said, “and I walk my neighborhood daily for 30 minutes.”

Katrina overcame the challenges that come with remaining consistent, “not allowing other daily factors to throw me off schedule,” and her dedication has led to inspiring results. “I went to my doctor for my physical,” she said, “and I got the news my blood pressure is perfect, and I don’t need any medication. The advice I would give is to keep going — even though you run into some hard days — because the outcome will be rewarding.”

Dan Bailey
A few years ago, Dan Bailey found that smoking was making life more difficult. “I noticed I would run out of air doing normal things,” he said. “Climbing a flight of stairs, walking to the mailbox.”

A process coordinator at our facility in Medina, Ohio, U.S., Dan had been smoking for nearly 15 years. “I had tried to quit a few times on my own, just to see if I could do it, but there was nothing pressuring me.” However, a health scare a few years ago gave Dan the impetus needed to finally make a lasting change. “My heart was in good shape overall, but I had three blockages that required stents. My doctor said if I quit smoking, I would probably never have to see him again — if not, I could be right back there in five years.”

Nearly two years ago, Dan underwent laser acupuncture at a clinic outside Cleveland, Ohio, U.S. The practitioner applied the treatment to spots on his hands, nose, and ear. He smoked his last cigarette on the way to treatment, and he has remained tobacco-free ever since.

Dan credits his plant’s Healthy Living initiatives for providing the extra encouragement needed to break the habit. Working in a tobacco-free facility, Dan said, “helped enough to where I could get past the addiction. Today I can be around smokers, and it doesn’t affect me.”

According to Dan, quitting tobacco has been not only physically beneficial, but a mental relief as well. “It’s like losing a ball and chain,” he said. “Not having to worry about whether I’ve forgotten my cigarettes or my lighter, or whether I need to buy more when I’m at the gas station. It’s like a big piece of a bad part of me is gone.”

Photo submitted by:
Scott Campen | Tennessee, U.S.
Kanarra Creek, Kanarraville, Utah, U.S.
Reporting Healthy Living Metrics

We report our Healthy Living critical metrics across three tiers: Action-Based, Health Risk Factors, and Disease-Related.

TIER 1

**ACTION-BASED METRICS**

act as leading indicators for tracking program success.

**Our key Tier 1 metrics include:**

- Percentage of employees enrolled in the Healthy Living mobile platform
- Percentage of employees engaged or highly engaged in the Healthy Living mobile platform
- Percentage of employees completing their annual health risk assessments and biometric screenings
- Heart-age survey completion
- Average number of steps taken at each facility per employee every week
- All corporate and regional activity-based campaigns and challenges

TIER 2

**HEALTH RISK FACTORS METRICS**

look at health risk factors that contribute to chronic disease, and primary preventive measures such as immunizations and age-appropriate screening tests that help prevent illness.

**Our key Tier 2 metrics include:**

- Tobacco use rates among employees
- Percentage of employees with appropriate body mass index (BMI)
- Percentage of employees receiving appropriate cancer screenings for their age and gender
- Percentage of employees receiving their key, age-appropriate immunizations

TIER 3

**DISEASE-RELATED METRICS**

track actual disease and illness statistics in the aggregate within our program population.

**Relevant lifestyle-related morbidities include:**

- Diabetes
- Atherosclerotic coronary vascular disease (ASCVD)
- High blood pressure
- Certain cancers

Tier 3 program metrics are longer term, and their success will be measured over years. If Tier 1 and Tier 2 metrics are successful, health science gives us confidence that Tier 3 metrics will improve well into the future.

Since 2018, we have maintained a high-level dashboard to centralize our data management and keep aggregated Tier 1 Activity-Based and Tier 2 Health Risk Factor metrics. This dashboard is updated weekly and is available to all Owens Corning employees, while aggregated Tier 3 data is available to a limited group of health professionals.

Our health programs are designed to help employees understand how the three tiers address the health issues that can impact their lives, as well as the lives of their families. Our goal is to have programs that change behaviors and bring sustained benefits to employees’ lives inside and outside Owens Corning.
**Metrics Dashboards**

Our metrics dashboards track our facilities’ success and provide up-to-date information on programs, offering transparency about our healthy living efforts. In addition to the pillars and wellness teams, we implement policies that help drive better health.

<table>
<thead>
<tr>
<th></th>
<th>2021 TOTALS</th>
<th>2022 TOTALS</th>
<th>2022 GOAL</th>
</tr>
</thead>
<tbody>
<tr>
<td>Platform enrollment</td>
<td>73%</td>
<td>77%</td>
<td>75%</td>
</tr>
<tr>
<td>Platform engagement — earning &gt;12,000 points (average of available quarterly data)</td>
<td>39%</td>
<td>38%</td>
<td>60% or 10% improvement over 2021 results</td>
</tr>
<tr>
<td>Health risk assessment questionnaire completion</td>
<td>48%</td>
<td>41%</td>
<td>60% or 10% improvement over 2021 results</td>
</tr>
<tr>
<td>Biometrics screening completion</td>
<td>38%</td>
<td>43%</td>
<td>60% or 10% improvement over 2021 results</td>
</tr>
<tr>
<td>Average steps per day for employees enrolled in the program</td>
<td>3,130</td>
<td>2,839</td>
<td>5,000</td>
</tr>
<tr>
<td>Average steps per day for employees who are enrolled and tracking</td>
<td>7,989</td>
<td>7,553</td>
<td>9,000</td>
</tr>
<tr>
<td>Employees reporting they are tobacco free (2022—2023 open enrollment data)</td>
<td>82%</td>
<td>83%</td>
<td>N/A</td>
</tr>
</tbody>
</table>

**Opioid Prescriptions**

In response to the U.S. opioid crisis, Owens Corning’s policy limits short-acting opioid prescriptions to a three-day supply. Any pills dispensed beyond the three-day limit must be authorized. This policy decision, initiated in 2018, was informed by a report from the Centers for Disease Control and Prevention indicating that addiction rates to a prescribed opioid can double after four to five days of continued use.

Photo submitted by: Dr. Bhalchandra Pedhambkar | Taloja, India
Owens Corning Get Active Challenge 2022.
ENCOURAGING HEALTHY LIVING
FOR OUR PEOPLE

Flu Shots

Owens Corning continues to stress the importance of flu shots as a way to help prevent the spread of the illness, and we remind employees that most Owens Corning sites around the world offer flu vaccines. Given the differences in healthcare distribution in different countries, flu shot campaigns are organized locally throughout our regions.

Healthy Competition for Healthy Habits

Lighten Up! Weight-Loss Challenge

In 2022, 2,289 employees from 68 Owens Corning sites participated in the annual Lighten Up! Challenge. Participants lost a total of 6,213 pounds (2,818 kilograms) — a 1,216% reduction in total body fat.

The top three women and top three men who participated were awarded prizes including fitness equipment, smart TVs, camping equipment, and more. Winners were determined based on number of pounds lost and body fat reduction. All participating employees earned 2,000 points on our Healthy Living platform.

<table>
<thead>
<tr>
<th>Lighten Up! Challenge Site Winners</th>
<th>SMALL SITE</th>
<th>LARGE SITE</th>
</tr>
</thead>
<tbody>
<tr>
<td>1st Place</td>
<td>Rockford, Illinois, U.S.</td>
<td>Taloja, India</td>
</tr>
<tr>
<td></td>
<td>309 pounds</td>
<td>621 pounds</td>
</tr>
<tr>
<td>2nd Place</td>
<td>Changzhou, China</td>
<td>Sayli, India</td>
</tr>
<tr>
<td></td>
<td>220 pounds</td>
<td>444 pounds</td>
</tr>
<tr>
<td>3rd Place</td>
<td>Fort Smith, Arkansas, U.S.</td>
<td>Qingdao, China</td>
</tr>
<tr>
<td></td>
<td>200 pounds</td>
<td>333 pounds</td>
</tr>
</tbody>
</table>

Photo submitted by: Qingdao Novia, Shandong
Employees participating in the Lighten Up! Challenge.
HEALTHY LIVING AWARDS REPRESENT GLOBAL SUCCESS

While our current 2030 goals for health and wellness are largely aspirational in nature, we are working toward more quantifiable targets related to the overall well-being of our employees. This includes monitoring and measurement in the following areas:

- Healthy Living pillar innovation
- Progress against stated metrics
- Employee engagement
- Plant leadership involvement
- Evidence of a robust wellness culture
- Community involvement
- Program integration into the TPM process

Our annual Healthy Living Awards serve as an example of how we put those criteria into action, and we are seeing very promising results globally as sites around the world are actively engaging with the program — and delivering impressive results. Our most recent winners reflect our global successes.

**Co-champion: Taloja, India**
Since officially launching its wellness program in 2014, Owens Corning India has grown and expanded its services. A Taloja plant leadership team member leads each Healthy Living pillar. Every eligible employee has completed biometric screenings, and almost 97% of employees are tobacco free, which is a best-in-class effort for the plant’s size and salary/hourly workforce mix.

The facility has integrated their Healthy Living program with TPM using a three-pillar approach, which helped them find practical solutions to wellness issues, record better employee engagement, and track the program systematically. The program has become increasingly holistic — caring for employees’ physical, mental, financial, and social health, aligning itself with Owens Corning’s overall approach to health.

**Co-champion: Rockford, Illinois, U.S.**
Rockford showed innovation in its Healthy Living pillar activities, especially the Healthy Minds and Financial Health pillars (two of the most difficult pillars to engage employees in). Employees received daily emails addressing mental health education, a personal touch that garnered almost 90 unsolicited positive employee responses and further inquiries.

Rockford has one of the highest employee 401(k) contribution participation rates at 93% and nearly 80% of employees contribute fully to receive the full company match. The plant encourages participation through strategies such as games, competitions, dedicated weekly wellness days, and its local TPM process.

**Second Place: Oklahoma City, Oklahoma, U.S.**
The wellness team connected with all employees daily. Every employee enrolled in the Healthy Living mobile platform and took the health risk assessment. In addition, 81% participated in a biometric screening event, and almost half took part in the 2021 Lighten Up! challenge. The plant held monthly safety meetings that included education sessions on the six Healthy Living pillars.

**Third Place: Singapore**
Health checks were available for all employees and 100% of employees participated in the first health screening. The plant excelled at employee appreciation, EAP promotion, and financial health education. A mini-garden was also created on-site, which employees maintained as a way to enhance physical activity and mental health, and obtain fresh food. Brisk outdoor walks and a yearly game day were organized to promote physical exercise.

**Most Improved Site: Savannah, Georgia, U.S.**
The plant focused on the Know Your Numbers pillar, resulting in a 71% increase in biometrics participation and a 38% increase in health risk assessment completion. The plant brought all six pillars together in its biometrics/health fair event, which saw 74% participation. A big part of the event’s success and the plant’s increase in wellness activities was due to the involvement of the plant leadership team. In addition, the plant’s inclusion and diversity team helped increase community involvement and personal wellness.
EXPANDING OUR COMMITMENT TO EMPLOYEE WELL-BEING

Similar to our approach to sustainability, which seeks to improve the quality of life for people everywhere, our approach to health and wellness is all-encompassing. By focusing on many different elements of employee well-being, we are helping our employees live healthier lives. This, in turn, can help them become ambassadors for health among their families and within their communities.

Over the years, our Healthy Living programs have become increasingly global in nature, as Owens Corning sites around the world have adopted our initiatives and prioritized wellness among their people. It's a testament to the importance that we have placed on the well-being of our employees, and it inspires us as we work to expand our programs based on the best available health and behavioral science data.

Photos submitted by:
Guillaume Arly | L’Ardoise, France
In June 2022, a dietitian visited the L’Ardoise site, offering healthy dishes using seasonal fruits and vegetables, including smoothies, juices, and gazpacho.
In 2020, Owens Corning updated our core values to better reflect who we are as a company. We took our original value statement — that we are global in scope and human in scale — and added four core values:

Caring | Curious | Collaborative | Committed

Fine-tuning our values statement reinforces the importance we place on corporate citizenship—an increasingly important part of our sustainability journey.

**Employee Experience**

These expanded core values begin in the Owens Corning workplace, where we create a work environment rooted in integrity and optimism. By encouraging connections among our people, we can help them work together with openness, transparency, and respect — an atmosphere that leads to the innovations that drive growth. And as we empower our employees, we seek to ensure they are competitively and equitably compensated.

**Inclusion and Diversity**

A truly successful workplace fully embraces the talents of the entire workforce, and Owens Corning has continuously sought ways to innovate in that area as well. We have prioritized inclusion and diversity throughout the enterprise, and our approach has evolved to ensure our people can achieve their potential in a work environment that truly enables them to thrive.

**Community Engagement**

Our expanded definition of sustainability extends beyond our environmental footprint to fully encompass the quality of life for people everywhere, from our employees and their families to people in the areas where we serve to the global community.

**Human Rights**

Although we have updated our core values, we remain true to our original statement. As we work with people who represent an incredible range of nationalities and cultures, we remain global in our scope. By taking action to safeguard the rights of people at our facilities and across our value chain, we also continue to be human in scale.

As Owens Corning has progressed on our sustainability journey, our approach has evolved along with the changes that have impacted society as a whole, from issues of gender and racial equity to the expectations of a changing workforce. Through it all, our core values guide us to fulfill our aspirations toward a future that delivers a better quality of life for people everywhere. Throughout this section, we spotlight the many ways we are working to live those values in everything we do.
EMPLOYEE EXPERIENCE

In this chapter:
- 2030 TALENT STRATEGY GOALS
- RECRUITING & ONBOARDING GREAT PEOPLE
- HELPING OUR PEOPLE DEVELOP & SUCCEED
- CREATING AN EFFICIENT & REWARDING WORKPLACE
- EQUITABLE & EFFECTIVE SUCCESSION STRATEGIES
- COMPENSATION & BENEFITS AT OWENS CORNING
- OWENS CORNING AND THE FUTURE OF WORK

Owens Corning is incredibly proud of our employees — approximately 19,000 people from all around the world and from all walks of life. Their dedication, ingenuity, and collaborative spirit are essential drivers of our success, and we believe we have a responsibility to provide an optimal work environment for each of them. We are dedicated to creating an atmosphere that’s full of challenge, connection, and optimism — one where people feel empowered to bring their most authentic selves to work.

Today, providing a safe, rewarding work environment is more important than ever, given the current tight labor market. People's expectations regarding work have changed dramatically in recent years, and we recognize the need to meet people where they are. We strive to ensure that our mission, purpose, and values come to life every day throughout our operations, and that our modern workplace leverages systems, technology, and digital capabilities.

That’s why we have invested greatly in a range of initiatives designed to make Owens Corning the manufacturing employer of choice in the communities where we operate. To achieve this, we are using principles derived from the latest thinking on the future of work to create an employee-centric experience.

The social data in this chapter marked with a * sign were independently assured to a moderate level by SCS Global Services. For more information on the assurance process see About the Report, and for our verification statement please see Appendix F.
2030 GOALS TALENT STRATEGY

By 2030, in conjunction with our inclusion and diversity goals, we will make continuous improvements in recruiting, retention, training and development, mentorship and sponsorship, professional growth, and employee engagement.

To that end, we have established a number of specific targets to measure the effectiveness of our talent strategy. Progress toward each goal is detailed in this chapter.

- 100% retention of high-potential talent between annual talent reviews.+
- 75%–85% internal fill rate for leadership roles.*
- Two “ready now” internal succession candidates for key leadership roles.*
- >95% of staff indicating they are frequently putting all their effort into their work.^
- 90% staff and 85% primary worker response rate to our two global enterprise surveys.^

RECRUITING & ONBOARDING GREAT PEOPLE

In today’s tight labor market, the need to present Owens Corning as an attractive option for prospective employees is paramount. This involves reaching out to the broadest possible talent pool, providing flexibility when possible, and offering a competitive range of benefits.

Learn more about our inclusive recruiting policies on page 220.

Technology Investments

With the introduction of mobile-friendly applications and a standardized platform for recruiting activity, anyone who applies for an Owens Corning position, anywhere in the world, is using the same technology. This enables us to communicate a consistent culture globally while still customizing some materials to match the nuances of the regions we serve.

Hiring and Empowerment at the Local Level

As we seek to optimize costs and efficiencies, we recognize the importance of local hiring. Employing individuals who live in or are citizens of the country where they are assigned means that we are supporting economic growth in the areas where we operate. In addition, we are working to empower local teams and leadership, encouraging them to take ownership of their operations. As they are able to make decisions at the level closest to where their work is done, our people report that they are able to respond faster and more effectively to the needs of customers, which leads to greater success for Owens Corning as a whole.

Internships

In addition to providing college students with valuable work experience, our internship program is an essential part of our recruitment strategy. Giving students an opportunity to learn about our business helps ensure that we may remain top of mind as they begin to enter the workforce. In 2022, Owens Corning hosted over 100 summer interns at 22 sites across the U.S.

![Photo submitted by: Logan Hochstetler | Tallmadge, Ohio, U.S.]

Tallmadge warehouse team had its first all-women shift.

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**2030 GOALS TALENT STRATEGY**

**RECRUITING & ONBOARDING GREAT PEOPLE**

**Technology Investments**

**Hiring and Empowerment at the Local Level**

**Internships**

---

![Photo submitted by: Logan Hochstetler | Tallmadge, Ohio, U.S.]

Tallmadge warehouse team had its first all-women shift.
HELPING OUR PEOPLE
DEVELOP & SUCCEED

In the current employment climate, it’s more important than ever to understand the factors that motivate people to remain with a company. Owens Corning believes that people need to feel valued, and that they are appreciated for who they truly are — not despite their differences, but because of them.

We take steps to ensure that people feel connected with their work, and we have established a number of specific targets aimed at retaining top talent and assessing employee engagement.

Engaging Our Employees at Every Step of Their Careers

Owens Corning invests in our employees at every stage of their careers, from early career development and midcareer advancement to executive-level cohort learning. Since our learning and development initiatives are aligned to our business strategy, they have been highly beneficial for our people and for our company.

■ Leading Pink helps strengthen the skills of current people leaders, as well as prepare individuals who are interested in advancing into leadership positions. The program combines self-paced e-learning, individual reflection, and interactive virtual classroom sessions focused on a variety of leadership topics, all rooted in Owens Corning’s Leadership Capabilities for Growth.

■ CareerHub is a one-stop, customized career development experience that facilitates growth in an employee’s current role and helps them prepare for future roles. CareerHub enables employees to track and refine their career development plan with support from their leaders, as well as measure their progress along the way. Employees partner with their direct leader to assess their knowledge, skills, and behaviors against what’s required in their current roles or other roles of interest. Once employees understand where to focus their development, they can access curated learning resources and connect with a mentor who can help them on their career journey.

■ Coaching for Growth is an accessible, scalable, modular approach that combines on-demand learning with a collaborative virtual classroom. The program offers a space for employees to practice their skills and receive feedback from their peers.

■ Enhanced Learning, powered by Percipio, delivers learning resources to support our global staff employees’ unique development goals. Percipio offers personal and professional development tools, skills training, continuing education, and professional certification preparation. These learning modules cover a broad range of topics, from leadership skills to technical or data analysis skills.

TPM and Employee Training

Our global training and development efforts are rooted in Total Productive Maintenance (TPM) methodology, which is designed to guide the capture and transfer of knowledge and provide employees across our manufacturing facilities with the skills they need for success. Our programming includes one-point lessons, 3D diagramming, hands-on test-and-learn, and one-on-one coaching and mentoring.

Learning & Development Initiatives

We offer a wide range of programs designed to provide our people with opportunities for advancement, including the OC Leadership program and the Leading at the Next Level program. In addition, we have recently integrated the following curricula into our training, which builds leadership skills in ways that are scaled and available for all our employees.

Critical Thinking Skills

In addition to providing our employees with tangible skills, we also endeavor to advance their ability to think critically and strategically. Employees hone these skills through workshops and projects focused on customer-inspired growth, product management, human-centered design, organizational design, and strategy execution.

Early Career Programs

Our long-range commitment to inclusivity is inherently linked to maintaining a sustainable pipeline of diverse talent. Through our Early Career programs, we can foster new talent — often directly from university. These new hires are a constant source of invigoration for our team, as their diverse approaches and backgrounds provide us with exciting new perspectives. In addition, Early Career programs enable us to establish long-term plans for a diverse pipeline of future leaders.

As of 2022, we have retained 88%* of Early Career Development Program participants after one year, and 58%* of participants after five years. This surpasses benchmark retention rates obtained from the National Association of Colleges and Employers (NACE), whose 2021 data (the most recent available) indicates 68% retention after one year and 42% after five years.
**Special Assignments and Training**

We provide opportunities for employees to sharpen their leadership skills by putting them to use in real-world situations, leading groups, projects, and assignments. Other possibilities may include becoming an affinity group leader, working on special projects, and rotational assignments.

We track the progress of many of our formal learning and development activities across the company through data recorded in our learning management system (LMS). Each facility reports participation in formal learning programs such as classes, e-learning courses, and structured on-the-job activities.

In 2022, our primary workers recorded an average of 18 hours in our LMS, and our salaried workers recorded 10 hours.* Data include any training that was recorded in our LMS for the year, primarily formal learning programs conducted across the company. The pandemic led to many changes in our training programs — some courses were paused while we worked to create virtual training alternatives. Most of the learning and development activities that take place in Owens Corning are considered informal learning, such as coaching, mentoring, social groups, projects, assignments, and suggested reading. Though these are crucial experiences for our workers, they are not captured in the LMS.

We evaluate the effectiveness of much of our training using the Kirkpatrick model, which measures the extent to which participants benefit from learning opportunities. The model gauges effectiveness in four tiers:

- **Reaction.** Did the participants enjoy the training?
- **Learning.** Did the participants gain new knowledge?
- **Behavior.** Will the participants apply the learning to their everyday experience?
- **Results.** What impact has the training had on performance metrics?

**Quantifying Employee Engagement and Success**

Evaluating the effectiveness of our learning and development programming is one part of our approach to gaining quantitative insights into our people's attitudes toward their work. Measuring our performance toward these targets helps us gauge employee engagement throughout the organization, and it demonstrates our dedication to ensuring positive experiences for our people.

In 2022, we did not conduct global surveys. Historically, we have measured engagement by combining the percentage of people who select "Agree" or "Strongly Agree" on our annual employee engagement survey. This is a common practice among the engagement surveys against which we set our benchmarks. Our new approach to employee experience surveys provides an opportunity to gauge our employees' overall job experience, including the extent to which employees feel a sense of purpose in their work, trust Owens Corning leadership, and have the organizational support needed to reduce their stress in the workplace and enjoy work-life balance.

In our most recent surveys, 98% of staff employees reported that are frequently putting all their effort into their work. These figures place us far above the Society for Human Resource Management average of 69% of people who respond similarly to engagement surveys. We had an 89% survey response rate among staff employees and a 70% response among primary employees.

We recognize the need to change our approach to employee surveys, a shift that is in keeping with the changing nature of employee listening as companies move toward more nimble, frequent, and targeted methods. This evolution of our employee listening strategy is a core enabler of our talent aspiration to build an attractive and engaging employee experience. It is also a necessary response to stay connected to our workforce as labor market expectations shift rapidly.

Over the past two years, we have invested heavily in new technologies that have made this new approach more feasible. We have also been building out our strategies to measure the employee experience more frequently and through a variety of methods, from automatic touchpoints triggered by moments that matter to on-demand assessments to provide input when employees need it most.

As our employee listening strategy evolves, we expect our goals to evolve away from all-employee surveys every two years. While we had been achieving near-perfect response rates, we believe it is important to prioritize more and frequent opportunities for our employees to share their experiences and have their voices heard.
Performance Reviews

Performance reviews are an opportunity for employees and leaders to collaborate on performance and development throughout the year. Employees and leaders work together to establish annual goals at the start of the year. Employee self-reviews and leader evaluations are formally documented at midyear and year-end. These formal reviews are supplemented throughout the year through agile check-ins where continuous feedback regarding goal progress is discussed. While not part of the formal annual process, leaders are encouraged to gather performance input from others where applicable, whether through 360-degree feedback or some other method.

Review and Appraisal Percentages*

<table>
<thead>
<tr>
<th></th>
<th>2018</th>
<th>2019</th>
<th>2020</th>
<th>2021</th>
<th>2022</th>
</tr>
</thead>
<tbody>
<tr>
<td>Men</td>
<td>99%</td>
<td>99.8%</td>
<td>99.5%</td>
<td>99.9%</td>
<td>99.8%</td>
</tr>
<tr>
<td>Women</td>
<td>99%</td>
<td>99.6%</td>
<td>99.6%</td>
<td>99.9%</td>
<td>99.9%</td>
</tr>
</tbody>
</table>

Of the 0.1% of staff employees who did not receive reviews, most were either on leave during the year, recently promoted into a staff role, or hired after November 1, 2022. Employees are not required to have a review until after three months of employment.

Turnover Rates

Where retention issues are concerned, we realize that some individuals’ decisions might be based on factors beyond our control as a company. Our turnover rates are consistent with global trends, including the U.S. labor shortage and a booming competitive market for talent around the world.

By striving to build the workforce of the future and developing an attractive environment for the next generation of employees, we can actively meet today’s labor market challenges.

Overall turnover increased to 26%+ in 2022, up from 20% in 2021. The increase was driven by higher turnover among our primary employees, which was 31%+ in 2022. Turnover among staff employees was 15%. The increase in our turnover is directly attributable to a divestiture in France, our assets in Russia, as well as the closure of a site in the U.S.

Employee Milestones

Owens Corning employs approximately 19,000 individuals, many of whom have been with the company for most of their careers. As of December 31, 2022, over 3,300 employees had served 20 years or more with Owens Corning, with the longest term being 61 years. We believe the years of service that so many of our employees have dedicated to our company are a testament to our success in fostering a positive employee experience.

Average Workforce Tenure by Region (in Years)

![Average Workforce Tenure by Region](image)

<table>
<thead>
<tr>
<th>REGION</th>
<th>ALL EMPLOYEES</th>
<th>PRIMARY</th>
<th>STAFF</th>
<th>NUMBER OF EMPLOYEES SERVING OVER 20 YEARS</th>
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</thead>
<tbody>
<tr>
<td>Asia Pacific</td>
<td>9</td>
<td>8</td>
<td>11</td>
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</tr>
<tr>
<td>Europe</td>
<td>12</td>
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<td>8</td>
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<td>North America</td>
<td>11</td>
<td>11</td>
<td>11</td>
<td>1,888</td>
</tr>
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</table>
CREATING AN EFFICIENT & REWARDING WORKPLACE

Mentor Sponsor Program

Owens Corning has always had a strong mentoring culture, but in 2021, we began building a more structured mentor sponsor program to engage our employees from underrepresented groups. Several pilots were launched, designed to pair up employees from all walks of life with mentors and sponsors who can help foster meaningful relationships and increase employee engagement.

As part of the enhanced program, we implemented a new mentoring program playbook, which includes a reverse mentoring component for all mentor/sponsor relationships. Through reverse mentoring, junior employees have an opportunity to provide insights into the organization from their perspective, which in turn helps senior employees lead more effectively. The playbook includes checkpoints at three months, six months, nine months, and the one-year mark, offering recommendations for what should be occurring between the sponsor and the mentee.

Building upon the overwhelmingly positive feedback and the desire to expand these opportunities, we invested in a platform that uses algorithms to pair up the right individuals for these relationships. The OC Mentoring program is part of our CareerHub career development module, providing salaried employees who are seeking a mentor with options based on their individual development needs. In addition to traditional mentoring for career growth, OC Mentoring emphasizes the ability to upskill leadership capabilities and make the connections needed to better understand another business or functional area.

By tracking and encouraging interactions between mentors and mentees, the program adds structure to an already strong mentoring program and encourages retention throughout our organization. In addition, we are integrating the Dimensions of Diversity from our Inclusive Leader Workshops into our programming, which will provide further guidance for mentoring conversations.

Digital Worker Initiatives

Digital tools are transforming the workplace, helping us organize work and collaborate better. They help us facilitate interactions between employees and stakeholders, and they enable us to analyze large and diverse data sets. Through our digital worker initiatives, we aspire to build an efficient, cohesive work experience for our employees. Digital hubs for each initiative will enable employees to collaborate and connect, anywhere and anytime, as they serve our customers and deliver successful outcomes.

- **Customer Service.** We seek to create a frictionless customer experience, regardless of how the customer chooses to do business with us: voice, text, chat, web, or system integration. This will create a seamless, integrated experience for our customers and, by offering us greater insights into that experience, enable us to serve them better.

- **Human Resources.** We continue to expand our HR technology platform, Talent Center. New platforms for career development (introduced for salaried employees in 2022), onboarding, and recruiting will continue to respond to the changing needs of our current and future workforce.

- **Sourcing.** We can drive a new level of efficiency in our sourcing operations by expanding strategic e-sourcing and e-procurement initiatives. We will do this through a “source to settle” hub that includes a comprehensive, unified view of spending and risks with our suppliers and sourced materials.

- **New Product Development.** By redeploying and digitally connecting our new product development hub, we can evolve the stage-gate core process to organize, prioritize, and execute innovation and facilitate communication for each business and discipline.

- **Capital Engineering.** Our aim is to make the capital delivery process a highly collaborative engineering experience, ensuring a seamless handover of physical assets and digital twins for operational teams to run. By transforming the engineering back-office hub, we can reduce the design time and engineering costs supporting digital engineering initiatives.

- **Enterprise.** We will focus on a common, consistent set of new and existing tools for efficient, synchronous team collaboration. We will create a group productivity hub to streamline access to the tools needed for the team, function, or enterprise to organize work and gain insights.

Each of these strategic initiatives is designed to drive the company forward and help us achieve our efficiency aspirations in a highly productive, engaging work environment. We know that Owens Corning’s culture is key to the success of these initiatives, and opportunities for employee engagement, participation, and feedback are planned and will be encouraged throughout their implementation.
Modernizing Workspaces

As part of our commitment to the future of work, we recognize the need to provide workspaces that meet employee needs. This includes locker rooms, breakrooms, dining areas, and more, as well as spaces that are in line with our commitment to inclusion and diversity, such as lactation rooms for new mothers. Around the world, Owens Corning is investing in the creation of these areas.

NEW LACTATION ROOM IN GASTONIA

For many nursing parents, breastfeeding is the most difficult part of returning to work. To ease this burden, workplaces can support these employees in a variety of ways, such as access to a lactation support helpline, breastfeeding education courses, services for traveling parents, and, of course, providing a lactation room on-site.

One such lactation room was recently installed at our plant in Gastonia, North Carolina, U.S., as human resources was notified that a number of employees were expecting or planning to expect a new baby. The plant didn’t have a designated area for nursing parents to pump and saw an opportunity to revamp its current locker room to create this space.

To create this site, we needed to understand and meet the legal requirements for lactation rooms in the workplace. The standard is that the room is not a bathroom, is private to ensure that no one can see into the room or enter the space while it’s being used, and is functional for pumping (i.e., seating, table for pump, electrical outlets). After figuring out what features the room needed, the site partnered with the maintenance leader and outside engineers to create a floor plan for the lactation room. We also went beyond regulatory compliance by including a refrigerator for convenient bottle storage.

Since the team decided to repurpose an existing space (instead of building a room from scratch), the project only took two months. Renovation also helped keep costs low, so there was no need to request capital funding. The room itself is wheelchair accessible and offers a warm and welcoming space for new parents.

EQUITABLE & EFFECTIVE SUCCESSION STRATEGIES

Our future success is directly tied to the pipeline of talent that we have created and continue to nurture over time. We pay close attention to the development of our emerging talent, providing the kinds of opportunities and projects that enable a diverse workforce to thrive. In addition, we look at how many employees are part of our career succession plan and how we can prepare our people for even greater opportunities.

Each year, we implement a three-phase strategy to anticipate staffing needs and develop succession plans:

1. Strategy Planning

   In the third quarter, business leaders from across the company come together to discuss our company’s goals and how we will reach them. This in-depth look at the company allows our human resources department to anticipate staffing needs.

2. Operational Planning

   In this phase, we closely examine the company’s budgets, schedules, and needs. This enables our human resources department and company leaders to anticipate specific talent needs and cultivate the pipeline for upcoming positions.

3. Talent Planning

   The final phase identifies our strengths, as well as the gaps in the talent pipeline, including succession at the officer level. Critical discussions center on development and business growth. As we proceed through the evaluation process, we ask ourselves the following questions:
   
   • What capabilities are required in the future that we do not have today?
   • Is it possible to grow these capabilities internally?
   • Are there any retention concerns?
   • What is the existing talent pipeline?
   • What key development needs should our learning and development efforts address?

   As part of this process, we evaluate our employees’ overall readiness for future roles and experiences. At the same time, we develop plans for our employees’ growth, ensuring that the next steps are in place for their career development.
High-Performing People

Owens Corning is dedicated to promoting an exceptional environment where our top talent comes together in a commitment to excellence. We believe that happens through clear objectives, effective performance management, and a structure that includes talent review, succession planning, development, and compensation. We view performance management as a consistent and ongoing dialogue between employees and leaders regarding staff members’ overall performance.

We recently redesigned our process for selecting and cultivating our top talent pipeline based on key insights from our internal analyses. In 2021, we launched this revamped pipeline program with a series of improvements, including clarified selection criteria, new individual development plans to guide the growth experience, and a new resource collection to ensure leaders have the tools to guide meaningful development. We will continue to measure the impact of these improvements against our desired outcomes.

We have set targets for succession planning that we intend to achieve by 2030:

**Internal fill rate of 75%–85% for leadership roles.**

We aspire to have mid-level, director, and vice president level roles filled by Owens Corning employees, either through promotion or as a lateral move, as a percentage of all internal fills and external hires for these roles. As we build our diverse talent pipeline, promoting from within strengthens our inclusive environment as employees see diversity among our leaders.

**Ensure two “ready now” internal succession candidates for key leadership roles.”**

We calculate this by taking the number of unique candidates who are ready for promotion into the key leadership role divided by the number of succession roles in that business unit. Although strong candidates may be on multiple succession lists, each individual is counted only once. In addition, we have set succession targets to help increase representation from women and people of color. More information about our progress in this area can be found beginning on page 230.

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**EMPLOYEE EXPERIENCE**

**COMPENSATION & BENEFITS AT OWENS CORNING**

One of the key elements of an employee-centric experience is our compensation and benefits package, which we believe should be performance-driven, market-competitive, and equitable. Through base and variable pay programs, we seek to reward both individual and collective contributions based on our business’s success. Base salaries are determined by the following factors:

- Job responsibility
- Benchmarking data on market competitiveness
- Individual competencies
- Job performance

The design, application, and administration of our global compensation programs adhere to a consistent philosophy—one that ensures equitable treatment for employees, regardless of gender, age, or ethnicity.

Base pay is determined by job responsibility level and targets the market median (the 50th percentile of comparable companies with whom Owens Corning competes for talent). Base pay rates are reviewed and updated annually, based on the job performed and the local market wages for similar skills, to ensure we are providing fair wages. We currently compensate our people at or above all established minimum wage requirements. For Owens Corning, minimum wages are generally not relevant, as most entry-level Owens Corning positions require a higher level of skill or knowledge than jobs at which the minimum wage would apply.
Pay Equity

Owens Corning believes an inclusive and diverse workforce is critical to our success, adding value to the business by fostering an environment that leads to high engagement and innovative thinking. Owens Corning operates programs that foster gender and ethnic diversity, as well as equality within its workforce. The company has implemented a robust pay equity gap review, which includes multiple processes and controls that are executed during its hiring and annual merit review. This program is designed to prevent pay equity gaps. We ensure the success of this review by performing a biennial pay equity review with the assistance of a third-party vendor. The third-party review includes a robust, statistical analysis of pay equity across its global salaried workforce. Consistent with its commitment to “equal pay for equal work,” the company remediates all identified and substantiated pay gaps through pay increases. The review in 2021 demonstrated that less than 1.4% of its 5,700 global staff employees required remediation, at a total cost of less than 0.02% of annual global salaries. Further, the company has implemented processes and policies to avoid inheriting unequal pay bias of prior employers.

Variable Incentive Plan

In addition to base pay, most primary employees are eligible to participate in Owens Corning’s Variable Incentive Plan (VIP) at the plant level, which is dependent on individual and plant results. Through this compensation program, above-average total cash compensation is provided when a location performs well, leading to a competitive structure overall. Employees’ compensation is proportionate to their role’s impact and the contributions the individual makes to the company, which ensures fairness.

Corporate Incentive Plan and Sales Incentive Plan

Owens Corning’s compensation philosophy is to use all elements of compensation effectively, aligning employees with the goals of the company and its businesses and encouraging our employees to meet and exceed desired performance objectives. Most staff employees are eligible to receive additional cash incentives through the Corporate Incentive Plan (CIP), based on the company’s year-end results and their individual performance. The corporate component is determined through earnings before interest and taxes (EBIT) targets and a consolidated corporate target, while the individual component is based on each employee’s annual performance. Staff employees in the sales function are eligible to participate in the Sales Incentive Plan (SIP). Each business designs a sales incentive plan, aligned to the strategy and objectives. These incentive plans are used to drive results and reward employees for meeting business and individual goals.

Long-Term Incentives

Our Long-Term Incentive (LTI) program is an equity-based program that uses a combination of Restricted Stock Units (RSUs) and Performance Share Units (PSUs), depending upon your level within the company. This program provides an opportunity to retain key talent and invest in our employees’ futures, provide opportunities to build wealth, and recognize extraordinary performance. Owens Corning offers these incentives to senior management and a select group of employees below the director level. Vice presidents receive a mix of RSUs and PSUs tied to the enterprise objectives of Total Shareholder Return (TSR), Return On Capital (ROC), and Free Cash Flow Conversion (FCFC), and directors receive RSUs.

Full-Time Employee Benefits at Select Sites

In addition to providing fair compensation for our employees, Owens Corning offers an array of benefits designed to attract and retain a workforce that is committed to excellence. Benefits are made available to regular, full-time employees and some part-time employees working at least 24 hours per week. These benefits vary by country, business unit, and work location. Not all benefits are available at all locations. These benefits include retirement savings plans, insurance, educational benefits, job security initiatives for redeployment, and more. The benefits highlighted here pertain to our U.S. workforce. A more complete list can be found in Appendix D.

Recently, we have begun providing several new benefits at many of our sites. These benefits go beyond standard health insurance and other perquisites, as they better reflect the needs of our diverse workforce. By offering these new or enhanced benefits, we can state even more definitively that we are committed to creating an inclusive work environment that truly values the priorities of our staff.

Flexible Work Arrangements

We have long seen flexible work arrangement as a key part of helping people achieve work/life balance. These arrangements include the following:

- Part-time: Fewer hours than a full-time schedule
- Job sharing: A special form of part-time work where two employees share the responsibility of one full-time role
- Flexplace: In which an employee works a full-time schedule but works off-site for a portion of the time
- Flextime: In which an employee works a full-time schedule in the office but start and end times fluctuate. This occurs within the guidelines determined by management and ensures the employee works within core hours every day
- Compressed work schedule: In which an employee performs a full-time job in fewer days than a typical work week
These arrangements are temporary or permanent depending on the employee’s needs. The employee and manager work together to develop the most appropriate schedule, authorize the agreement, and ensure work is completed on time and objectives are met. Owens Corning continues to work diligently to be cognizant of the needs of our employees. Currently, many of our employees work in a hybrid arrangement, in which they work from home on select days and in the office on others.

Benefits to Assist in Building a Family

Our current U.S. health plan provides coverage for fertility enhancement. It includes a lifetime medical benefit of up to $15,000 and a $5,000 annual prescription benefit, as well as comprehensive and advanced treatments within IRS guidelines for Aetna self-insured medical plans.

For U.S. and Canadian employees who are looking to adopt a child under 18 years of age, we now offer expanded benefits that can be put toward the expenses related to adoption, including legal fees. These benefits are $10,000 per event, with a lifetime limit of $20,000. In addition, the benefit will now include coverage for expenses related to surrogacy, as well as egg and sperm donation and freezing.

Scholarships

Employees who have worked at Owens Corning for at least one year are eligible to apply for the Owens Corning Employee Scholarship for a higher education degree. Recipients are selected based on manager recommendations, statement of career goals, demonstrated leadership, and past academic performance.

To promote our goal of access to education and academic excellence, the Dependent Employee Scholarship was established as an enduring gift for dependents of Owens Corning employees, helping those who demonstrate scholastic aptitude and financial need reach their fullest potential. In 2022, $217,721 in scholarships was awarded to Owens Corning employees and their dependents.

In addition, full-time employees seeking to participate in a graduate program while continuing their employment with Owens Corning may be eligible for education reimbursement.

In the event of an Owens Corning employee’s death, we continue to provide the individual’s family with health benefits for one full year.

Relocation Assistance

New hires and employees relocating from one site to another may be eligible for relocation assistance. This may include home sale assistance or lease cancellation, household goods move, reimbursement of miscellaneous transition and final move expenses, and tax assistance.

Career Transition Assistance Programs

Our goal is to help employees through every level of their career. For example, Owens Corning seeks to help employees prepare for retirement with on-site planning workshops. Owens Corning has studied its retirement program to ensure it fully supports employees throughout this transition.

To that end, Owens Corning maintains a program through which employees nearing retirement are given the opportunity to work part time while still receiving full-time benefits. Both Owens Corning and individual employees have benefited from this program, as transitions are made easier overall and employees can retire confidently, knowing their legacy will be preserved.

For employees who leave the company due to job eliminations and will be pursuing careers elsewhere, Owens Corning partners with a third-party organization to offer a variety of career transition programs. Individuals benefit from a personalized approach to career transition with flexible access, state-of-the-art technology, and connections to critical resources. Career transition assistance is not available for employees who are terminated for cause.

Labor Relations

Owens Corning prides itself on being a good corporate citizen and respecting the rights of our employees. This includes the rights to exercise freedom of association and collective bargaining. In addition, we seek to partner with suppliers who share this philosophy.

Approximately 64% of Owens Corning primary employees are covered by collective bargaining agreements. This includes relationships with unions, work councils, and employee associations around the world.

The specific language and scope of our labor agreements vary from site to site, but all are structured to recognize the importance Owens Corning and our workers place on health and safety as a guiding principle and core value. In all our facilities, employees are trained to understand, appreciate, and mitigate risk in the interest of their own safety and health, the safety and health of those around them, and of the organization overall. Other elements that are in these agreements, in addition to employee safety and health, include working conditions, discrimination or harassment, training, and career management.
Notice Periods for Operations Changes

The company uses a variety of methods to ensure that workers are informed of operations changes. These include our global intranet site, email communications, and leadership meetings with team members. Owens Corning provides at least the minimum notice required, which varies by local legislation and collective bargaining agreements in the regions where we operate. In many jurisdictions, our union and self-represented employees enjoy similar notice periods because of strong employee relations and labor practices, as well as applicable regulations.

U.S. Leave of Absence Policies

In the U.S., Owens Corning grants up to 12 weeks of leave, as specified by the Family and Medical Leave Act (FMLA). An additional, unpaid leave of absence for personal reasons may be granted when approved by the appropriate management. Maximum leave for personal reasons is 60 days, unless approved by the business unit or process area vice president of human resources.

Personal reasons may include education, family issues, and more. Additionally, U.S. salaried employees are allowed up to four weeks of bereavement leave in the event of the death of a spouse or a child under the age of 18. For other immediate family members (siblings, parents, grandparents, and children over the age of 18), five days of paid time off is provided.

For U.S. salaried employees through December 31, 2022, Owens Corning provided six weeks of short-term disability leave for the birth of a child, and eight weeks if the delivery occurs via cesarean section. Upon completion of the short-term disability benefit, birth parents were provided an additional two weeks of paid time off. Beginning in 2023, leave was expanded for all new parents, with all new parents receiving four weeks of paid leave. A new parent is defined as anyone welcoming a child into their family through birth, adoption, or surrogacy. Delivering parents are eligible for eight weeks of medical leave regardless of the delivery type, meaning the delivering parent is now eligible for a total 12 paid weeks of time off. Parental leave can be used in increments of at least one week anytime in the first six months after welcoming a new child. Non-birth parents receive four weeks of paid time off after the birth of the child, as do employees who have adopted a child. Our policies for routine leave, such as sick leave, personal days, and standard paid time off, vary by region, according to local customs, regulations, and laws. In the U.S., the amount of annual standard paid time off granted to salaried employees is determined by an employee’s length of professional experience.

Outside the U.S., Owens Corning adheres to federal leave of absence laws in the countries in which we operate. In addition, we offer benefits to provide income protection for disability leaves and leaves of absence that occur for other reasons.
**SPEAKING OF SUSTAINABILITY**

**Danielle Wittorp**
Analytics Leader, People Science Team

Like the rest of her team, Danielle Wittorp believes employees should enjoy the best possible experience throughout their careers, and she uses a data-driven approach to ensure that Owens Corning delivers. Danielle appreciates the ability to combine empathy with scientific rigor to gain a true understanding of the ways Owens Corning employees can get the most out of their work life. Throughout her career, including her six years with Owens Corning, Danielle has seen a great deal of change in the ways the employee experience is measured, and she has been instrumental in helping us stay true to our core value of being global in scope and human in scale.

"Owens Corning has a global presence, but we’re small enough that one person can make a difference and truly influence the company."

**On the evolution of our approach to the employee experience**

We’ve begun to think about employee experience differently over the last few years, and it’s been a really exciting evolution to see. Historically, a lot of our investments in employees have been focused on leaders and targeted audiences within the organization. Those are absolutely still important — leaders, and senior leaders in particular, play a very important role in our strategy. But we have really been challenging ourselves over the last few years to provide the same level of coaching, support, resources, career exploration, and career development at scale to all employees, and not just small groups of members through cohort-based learning. That’s been a really exciting development to see.

**On increasing inclusivity in our employee development programs**

As we grow and diversify in terms of the people working here, the skill sets that we employ, and the types of roles, I think it’s challenging us in a good way to include many more perspectives when we design programs and experiences. As someone who’s in our Human Resources Center of Excellence, I’ve seen a big shift in how we’re constantly thinking about the whole enterprise. We are doing far more projects and initiatives now that focus first on our hourly workforce. It’s exciting to see that we are not always automatically prioritizing the same people or locations. We are trying to approach things differently and be much more inclusive in how we deliver solutions, form teams, and design experiences.

**On the value we seek to create for our people**

I love that more investors and others are looking not just for our profitability, but our role in the lives of our employees and how we’re treating them. Employees spend most of their waking hours dedicated to us. I think it’s our responsibility to make that experience meaningful to the employee — and to improve that experience to the best of our ability. So I think it’s wonderful when we think very responsibly about our role in the communities where we work and the lives of the people who dedicate years to us.

Photo courtesy of Danielle Wittorp.
OWENS CORNING AND
THE FUTURE OF WORK

Building the workplace of the future means anticipating the needs of the workforce of the future. Owens Corning is at the beginning of a multiyear transformation in the employee experience within manufacturing.

Our work began this year with efforts to address critical issues for the employee experience. From there, we are moving on to establish a foundation for ongoing excellence into the future — setting up the structures needed to maximize and support transformational work while also realizing efficiencies today.

Throughout this process, we must rely on the voices of our employees, understand their perspectives, and explore and identify our biggest barriers and opportunities. We can also leverage the available internal data to better diagnose the drivers of employee behavior.

In order to build the workplace of the future, we must work together to:

■ Attract a diverse range of people representing all walks of life
■ Help them develop and succeed on their own terms
■ Create a safe, vibrant, modern workplace
■ Foster a culture where every person feels welcomed and appreciated — not in spite of their differences, but because of them

As proud as we are of the advances we’ve made, we know that in many ways, this will always be a work in progress. We look forward to every opportunity to create a meaningful, rewarding, and inclusive environment for all our people everywhere.
INCLUSION & DIVERSITY

In this chapter:
- 2030 GOALS FOR INCLUSION & DIVERSITY
- CREATING AN INCLUSIVE WORK ENVIRONMENT
- THE FUTURE OF INCLUSION & DIVERSITY AT OWENS CORNING

The principles of inclusion and diversity guide our work to create optimal employee experiences for all of our people. We are committed to organizational change, enhanced leadership capabilities, and equitable human resources practices designed to create an inclusive culture that values diversity in all its forms. We define diversity broadly to include race, ethnicity, gender, religion, sexual orientation, and language, as well as family background, socioeconomic background, interests, and experience.

The social data in this chapter marked with a † sign were independently assured to a moderate level by SCS Global Services. For more information on the assurance process see About the Report, and for our verification statement please see Appendix F.
We have established four goals for inclusion and diversity that complement our overall goals for the employee experience. By 2030, we aspire to:

- Build and support diverse workforce and leadership teams that reflect the communities in which we live, work, and serve.
- Retain diverse employees proportional to the communities in which we live, work, and serve.
- Increase internal succession with an emphasis on expanding the representation of women, people of color, and cultures from around the world.
- Demonstrate transparency regarding pay equity through periodic third-party reviews and ongoing internal analytics.

As part of these goals, Owens Corning has set quantifiable targets related to women and people of color in leadership, including plans for succession. Our progress toward these targets is discussed in detail throughout this chapter.

In addition, we are committed to providing employees with competitive compensation and benefits, as well as incentives based on individual and company performance. We also align our hiring strategy with local labor markets, especially as we grow outside the U.S. Other programs, such as flexible work arrangements, are designed to help employees maintain a healthy work-life balance.

**Inclusive Recruiting Policies**

We want Owens Corning to be people’s first choice as they weigh their employment options, and we are working to break down barriers that might prevent qualified people from joining us. By sourcing and recruiting from a broader pool of talent, we are actively living our core values and positioning ourselves to build a stronger organization.

**Revised Job Descriptions**

We are committed to ensuring that our job descriptions are inclusive and do not contain gendered language. We have also reevaluated descriptions and removed educational requirements where they are not necessary to the position. These efforts help ensure that all our job postings are as inclusive as possible — an early step toward building a diverse workforce.

**Appeals to Diverse Populations**

We are taking a strategic approach to reach people from all walks of life, developing relationships with a range of specific professional organizations and universities, including historically Black colleges and universities (HBCUs). In addition, members of our affinity groups routinely reach out to their contacts, including alumni organizations, professional organizations, fraternities, and sororities.

**Inclusion and Diversity Recruiting Champions**

Launched in 2020 as a partnership among our talent acquisition team, the inclusion and diversity function, and our affinity groups, the Inclusion and Diversity Recruiting Champion program brings together full-time employees who are active in our affinity groups and passionate about diversity recruiting. Participants play an integral role in the selection of internal and external candidates for early career and experienced roles throughout our North American facilities. In addition, they collaborate with talent acquisition and inclusion and diversity teams in strategy workshops to identify opportunities then form small project teams to work on solutions and improvements.
Inclusive Leader Training

We believe all Owens Corning employees have a role to play in recruitment, retention, and creating a culture of appreciation, as representatives of our brand. One way we accomplish this is through our Inclusive Leader training program, developed in partnership with Korn Ferry. The program empowers people leaders around the world and provides the tools to be inclusive leaders. We continue to expand its implementation throughout the organization globally, having fully rolled out in North America and Latin America and currently working on Europe and Asia Pacific.

Our Inclusive Leader workshops began with our senior leadership team and have been extended beyond top-level leaders through our Train the Trainer sessions. These sessions seek to train every people leader in the organization globally, from senior executives to front-line plant supervisors.

The training is grounded in our broad understanding of inclusion and diversity, including the prioritization of equity over equality. Equality means each individual or group of people is given the same resources or opportunities. While the intent of equality is admirable, it only goes part of the way toward fostering a culture of inclusion and diversity. Equity goes further, recognizing that individuals have different needs and providing people with the resources that best meet those needs.

It is also rooted in the idea that when employees from different backgrounds and experiences are brought together in a setting where each person feels a sense of belonging, the results are truly impressive. There is ample evidence demonstrating that diverse teams in an inclusive environment will consistently outperform nondiverse teams. Our strategies include training our leaders to recognize the importance of cultivating inclusive teams, and we can expect to see higher performance from our people through these efforts.

- **Dimensions of Diversity.** Although physical differences are easily recognized, they represent only a single dimension of the complex factors that shape individuals. The other dimensions of diversity include relational, occupational, and societal experience, as well as people’s values and their cognitive style and ability. Understanding others through the lens of these interrelated and often subtle dimensions strengthens our ability to relate to each other. This is the basis for inclusion.

- **Inclusion Scale.** Through our training, we also provide opportunities to role play and evaluate how our reactions to differences can affect our interactions. Our understanding of inclusion is mapped to a scale that expresses an individual’s comfort with differences: repulsion, avoidance, tolerance, acceptance, and appreciation. To build the culture of appreciation we aspire to, we must understand how our behavior toward others impacts their ability to succeed and do their best work. By providing an opportunity for employees to use simulated examples, they increase self-awareness, which can help drive change in their actions in future experiences.

Furthermore, we have partnered with Deloitte to develop four additional instructor-led modules intended to reach audiences from band 2 all the way to primary employees. It is the next step in the inclusive leader journey at Owens Corning after the Inclusive Leader Workshop. Band 2 and 3 leaders will explore additional types of bias and how they show up in the workplace. They will also understand their role in reducing barriers and supporting enablers to a culture of appreciation. Another module launching this year will target all leaders and staff and discuss psychological safety in the workplace. A similar module on the topic was created and tailored for our hourly and plant workforce. In the following year, bands 2-3 in the U.S. will further explore the trait “courage,” discussing being vulnerable and showing up as courageous leaders.

Owens Corning is committed to ensuring all our employees understand the role they play in building and maintaining an inclusive environment, one with a thriving culture of appreciation. To that end, we have set a 2030 target in which 100% of all our people leaders will be trained on inclusive leadership, and to maintain training at that level for all new hires or promotions into those roles.

**Percent of Leaders Trained in Inclusive Leadership by Region**

- **Asia Pacific**
  - 3%
  - Rollout planning beginning in 2023

- **Europe**
  - 29%
  - Rollout beginning in 2023

- **Latin America**
  - 37%
  - Sessions currently underway

- **North America**
  - 62%
  - Sessions currently underway
Inclusion & Diversity at the Global Level

Over the last year, we have matured in our global strategy for inclusion and diversity, and we have moved from one global council to four regional councils representing the regions in which we operate: Asia Pacific, Europe, Latin America, and North America. An overarching global council sponsored by CEO Brian Chambers provides connection across regions, support, and resourcing. The regional councils each own their operating model and work to drive change and implement inclusion and diversity initiatives and events that engage employees and align with their regional strategies. The individuals who serve on the council are dedicated to helping Owens Corning reap the rewards of capable, diverse, and highly engaged teams and committed to the following:

- Enhancing the employee experience
- Establishing sustainable diversity and creating a culture that provides value for employees, customers, shareholders, and communities
- Ensuring that our inclusion and diversity strategies support the business strategy and our company values
- Gathering resources to enable strategy success
- Measuring our success

Each global region has been active throughout 2022, developing and implementing a range of inclusion and diversity initiatives. These are discussed on the next two pages.

Photo above:
Granville and Toledo teams celebrating Diwali.
Europe

Members of the inclusion and diversity council in Europe formed the following five subgroups, focusing on these areas in 2022:

- Education and awareness
- Gender equality
- Fun and multicultural exchanges
- Multi-generational promotion
- Communications

The team has increased membership in these five subgroups over the course of the year, and 37 members of the European inclusion and diversity council and all EU HR leaders have completed Inclusive Leader training. The team has led a number of multi-generational focus groups, with a goal of sharing perspectives from younger employees. Coffee events led by women were also held to discuss the challenges they face in their work environments. In addition, the team has partnered with peer companies to increase diversity throughout our industry.

Latin America

The inclusion and diversity council in Latin America is working to address issues throughout its operations, especially the behaviors and beliefs within the culture that lead to gender discrimination and inequality at work and at home. This involves building and promoting gender equality for all Owens Corning employees, with a focus on strengthening processes to include women. The council’s work includes creating spaces for cooperation and discussion around such issues as salary review, talent acquisition, and women in operations. We aim to achieve this through a range of talks and activity sessions, which elevate the voice of women in the workplace and foster an atmosphere of collaboration.

In Mexico, the inclusion and diversity council presented a puppet show that discusses the impact of machismo, which refers to behavior by men that minimizes women. This show teaches our people about gender inequality, while also encouraging them to present the show at home to spread awareness. To address other issues — those related to race, social status, origin, and sexual orientation — the council has sponsored a range of initiatives. These include a series of Courageous Conversations, virtual workshops for inclusive leadership, Leading Pink e-learning opportunities presented in Spanish, and episodes of our podcast that are dedicated to inclusion and diversity. In addition, employees are encouraged to give back by engaging in their communities, contributing to area schools, and donating to facilities that offer asylum.

Asia Pacific

Employees at our plants in China received training on Discovering Unconscious Biases, one of the programs designed to achieve the region’s inclusion and diversity objectives for the year. All members of the plant leadership team and key supervisors participated in this half-day course. Each plant’s HR team also facilitated discussions locally to further strengthen awareness, introducing Owens Corning’s e-learning resources and encouraging people to share their stories. The plants’ management teams aligned on improving seven behaviors that can help them advance their inclusion and diversity journey.

Owens Corning India is committed to increasing the number of women in its operations. As part of this effort, the company operates a vocational training center in Taloja through its corporate social responsibility partner. This center offers vocational training to young women from economically weaker segments. They also are exposed to entrepreneurship and employment skills to help them be self-reliant. This program benefits the Taloja community well beyond Owens Corning.

Pride Month in June provided an occasion for employees in India to learn greater sensitivity, honor the contributions, and understand struggles of LGBTQ+ community members. As part of this celebration, the company organized an employee awareness talk with industry experts and members of the LGBTQ+ community, including a talk given by a trans woman who is currently an employee of a leading manufacturing company in India. She was invited to share her life and work experiences with participants.
North America

The initiatives the council is focused on fall under three pillars that align with our overarching strategy for inclusion and diversity: Creating a bias-free employee experience that unlocks a culture of appreciation where all of our employees thrive through improving diversity, growing engagement, and building capability:

**Improving Diversity:**
We aim to improve diversity at Owens Corning through attraction, recruitment, retention, and promotion. Under this pillar we have two council sub-teams focused on the below workstreams:
- Retention strategy for women and people of color (POC)
- Recruiting strategy for early career and underrepresented talent

**Growing Engagement:**
We aim to grow engagement and sense of belonging for all employees. Under this pillar we have a council sub-team focused on the below workstream:
- Plant inclusion strategy and action plan

**Building Capability:**
We aim to build inclusion and diversity capabilities and influence internally and externally through inclusive leadership. Under this pillar is a council sub-team focused on the below workstream:
- Infusing inclusion and diversity into the employee life cycle (with a current focus on onboarding practices)

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For the third consecutive year, Owens Corning was named a Noteworthy Company on DiversityInc's list of Top Companies for Diversity.
SPEAKING OF SUSTAINABILITY

Gina Thompson
HR Leader

Owens Corning’s inclusion and diversity journey has evolved considerably over the years, and Gina Thompson has been there nearly every step of the way. She has seen it grow from a handful of affinity groups to a central element of our sustainability efforts. Having spent nearly 14 years at our world headquarters and almost four leading human resources at our plant in Fairburn, Georgia, U.S., Gina has had a wide range of experiences integrating inclusion and diversity into everything we do, and she shares what makes Owens Corning unique in our approach.

On the importance of placing inclusion before diversity

People sometimes think those terms are interchangeable, but if you really understand the definition of those terms, they’re not. When you think about diversity, you think about the vast dimensions of what makes us — whether it be cultural, whether it be race, whether it be the church I go to. The things we’re trying to drive at the company aren’t just about representation. It really is creating a culture where people feel valued and welcomed — and they can bring all of themselves to work. When you think about inclusion, it’s when you mix it all up and create an environment where everybody just fits. We mesh together to create an environment of mutual respect and trust, where we’re building connections to support one another.

On engaging employees in our plants on inclusion and diversity

At the plant, you have to use a lot of different techniques and a lot of different venues to really try to build those connections with the employees. One of the things that has really made a difference are Courageous Conversations, which really allow people to come and be transparent about things that are on their minds. And people don’t hold back. It sometimes gets a little awkward, but that’s OK. If that’s the way you’re feeling, I’d like to know so we can work on a way to create an environment where we connect a little bit better.

On Owens Corning’s commitment to inclusion and diversity

People who might be considering Owens Corning as a place that they might want to land for employment should understand that this company has done a lot of great work in this area. The focus around inclusion and diversity is real — it’s not the flavor of the month. I’ve been around this for 18 years. I am so proud to be at a company that is putting inclusion and diversity first, and it just solidifies why I wanted to join Owens Corning. I’m proud of the work that we’re doing, the commitment from our executive leaders, the board, and everyone. They understand that in order for us to be successful, we are definitely going to have an inclusive work environment.

“What drives me is to create a work environment where people feel valued and respected. I’m glad to be aligned with a company that has those same values — it’s a perfect fit.”

Photo courtesy of Gina Thompson.
In 2022, Owens Corning sponsored the following affinity groups:

**Abilities**

The Abilities affinity group provides a community within Owens Corning that fosters the inclusion and growth of employees impacted either directly or indirectly by both seen and unseen physical or mental health disabilities.

The Abilities group seeks to fully practice inclusion by intentionally bringing forward the brilliance of our capable and diverse teammates. In doing so, they are able to empower employees to bring their true selves to work and elevate a culture of belonging within our group and in support of our inclusion and diversity initiatives. The group is also working to establish a goal for measuring the progress of increasing the number of individuals with disabilities in the workforce.

Abilities focuses on advocacy and education to promote belonging within Owens Corning. In 2022, the team reviewed and changed employment practices within the organization. This led to a 42% improvement in Owens Corning’s score from the National Organization on Disability. Abilities also offered several educational sessions, including an overview of the Employee Assistance Plan, which offers mental health services to employees, and a town hall to help employees discuss their disabilities with their leaders.

**African American Resource Group**

The mission of the African American Resource Group (AARG) is to advance excellence through attracting, acclimating, retaining, and accelerating career growth, thus enhancing Owens Corning’s business performance while leveraging the strength of a diverse workforce.

The AARG seeks to advance their mission while focusing on three strategic pillars: belonging, development, and education. As diversity, equity and inclusion continues to be a major imperative across organizations, AARG strives to be an integral part of Owens Corning’s journey. The group is focused on continuing to encourage inclusiveness, foster belonging, and educate each other to achieve this goal within our company.

Throughout Black History Month in February, the AARG spotlighted Black-owned businesses located near Owens Corning sites. The group hosted a special event to educate employees on Critical Race Theory, focusing on what is it and what it is not. The speaker for this event was Dr. Patrice McLellan, and the hour was impactful and well-received by all who attended. In addition, Dr. Larry Hamme, the first African American to graduate from the Clinical Program at the University of Toledo, hosted an informative session on breaking the stigma of mental health in the Black community. In 2022, AARG also co-hosted several events with other affinity groups, including the Women’s Inclusion Network book club (*Becoming* by Michelle Obama) in March.

At our annual Affinity One event, employees have an opportunity to learn more about our affinity groups, meet the leaders, ask questions, and learn how they can get involved.
Connections

Connections strives to engage employees by building relationships at Owens Corning and within the local community. The group aspires to create fulfillment by offering a sense of belonging and encouraging inclusivity.

As part of its strategy for achieving its mission, the group hosts several events throughout the year. These include volunteer opportunities, which help foster stronger connections among employees and with the city of Toledo, Ohio, U.S., the home of our world headquarters.

Each year, Connections hosts the Toledo Tomorrow series, giving employees an opportunity to interact with local speakers and groups who are shaping the city's bright future through community involvement and events. In 2022, representatives from the Sofia Quintero Art and Cultural Center and the Hindu Temple of Toledo gave presentations spotlighting their organizations' efforts to serve their communities in the Toledo area.

In June 2022, the group partnered with Lucas Metropolitan Housing's Thumbs Up beautification program, also sponsored by United Way of Greater Toledo. Volunteers painted, planted flowers and shrubs, and spread mulch at a housing site in Toledo. In addition, Connections members volunteered at the Chase Fall Festival, a trunk-or-treat Halloween event at the Chase STEMM Academy, and joining the Women's Inclusion Network at a concession stand at Mud Hens game, with proceeds benefiting Aurora House, which provides housing to homeless women and children.

Harmony

The Harmony affinity group shares their unique Asian voices and viewpoints to shape Owens Corning’s culture through education, connection, and influence. The group aims to help Owens Corning build, grow, and retain top Asian talent who aspire to build a more inclusive, diverse, and sustainable company.

Harmony takes a strategic, intentional approach to fulfilling their mission, with a focus the Lunar New Year in January, Asian American and Pacific Islander (AAPI) Heritage Month in May, the Affinity One event in July, and Diwali in October and November. They educate non-Asian colleagues and include plant locations in a number of activities throughout the year. They also work to overcome time zone challenges by replaying recordings as new or separate events in different regions, and they financially support and co-host events with other affinity groups.

Throughout AAPI Heritage Month, Harmony sponsored a number of events, kicking off with a book club event featuring author Mira Jacob. The group also presented a trivia event hosted by CFO Ken Parks, as well as a career talk with Insulation business president Todd Fister. As part of our Diwali celebration, Harmony joined the Interfaith Exchange affinity group in sponsoring in-person events at our world headquarters, our Granville Science & Technology center, and two of our locations in India, as well as offering remote opportunities for employees around the world.

HOLA: Hispanic Origin and Latin American Affinity Group

The HOLA affinity group’s objectives are to build a platform for the Hispanic/Latin community within Owens Corning; create intentional and focused content that engages, educates, and empowers employees; and connect with our local communities and industry partners to build stronger relationships in all communities.

The strategies HOLA uses to achieve its aspirations are built into its mission statement. They sponsor a number of events throughout the year that educate our employees while building strong relationships among our people and within our communities.

To celebrate Hispanic Heritage Month, HOLA sponsored a talk from author Jennie Lopez-Reed, whose work empowers diversity and engages employees and organizations to achieve their highest potentials. Throughout the month, the group hosted several additional events, including a trivia contest, a dance performance, and a community connection event at our world headquarters. Members of the group also posted their favorite Hispanic heritage recipes to our intranet throughout the month. In honor of Día de los Muertos, HOLA set up an altar at the Sofia Quintero Cultural Center in Toledo, Ohio, U.S. In December, they partnered with a Toledo-area parish to celebrate Las Posadas, the traditional reenactment of Mary and Joseph's travel to Bethlehem.
Interfaith Exchange

Interfaith Exchange serves to provide a path for employees to share their beliefs with each other in a way that allows each distinct voice to be included, appreciated, and valued.

The group has established strategies to accelerate the program to multiple regions, places, and organic faith groups, with a focus on marketing, communications, and an interfaith playbook. They seek to ensure that the Owens Corning community continues diversity education regarding different beliefs, increase a community of caring throughout special interest groups, and work to ensure that the group’s aims are integrated with new employees’ experiences.

In addition to partnering with Harmony to present the Diwali celebration mentioned above, Interfaith Exchange sponsored several events throughout the year. In March 2022, the Interfaith Exchange and the Europe Inclusion and Diversity Council convened a 30-minute interfaith prayer vigil for global peace in the aftermath of the Russian invasion of Ukraine. In addition to faith education and “Ask Me Anything” sessions, the group also hosted a Courageous Conversation titled “Faith? At Work?” The discussion centered around open and respectful expressions of faith and belief in the workplace. They also sponsored an in-person potluck at world headquarters to celebrate the rare convergence of Judaism’s Passover, Christianity’s Easter, Islam’s Ramadan, and Hinduism/Sikhism's Vaisakhi.

OUTreach

OUTreach serves as a network to advance an environment that celebrates and appreciates LGBTQ+ employees for who they are through policy change, education, allyship, and in support of the broader LGBTQ+ community.

To help fulfill their mission, OUTreach focused on a number of areas in 2022. This includes working with the broader company to implement voluntary self-identification, which will allow individuals to voluntarily disclose if they are LGBTQ+ and their gender identity, so that we can better understand our employee population and its needs. The group is also working to ensure development opportunities for members and explore broader involvement in Out & Equal, an organization focused on LGBTQ+ workplace equality. In addition, OUTreach advocates for inclusive LGBTQ+ recruiting practices as well as new policies or programming, such as plant inclusion teams and parent support groups. The group is also working to maximize its partnership with oSTEM (Out in Science, Technology, Engineering, and Mathematics)

OUTreach coordinated Owens Corning’s participation in three Pride parades in Ohio: Toledo, Granville, and Columbus. At each location, Owens Corning employees showed their support for the LGBTQ+ community. In addition to a Courageous Conversation discussing Pride at Work, OUTreach offered presentations covering a wide range of topics, including How to Speak LGBTQ+, focused on employees’ coming out stories; a panel event titled Trans Talks; and a webinar discussing the unique financial concerns that may apply to LGBTQ+ people.

Salute

The Salute affinity group, a community of Owens Corning employees, is focused on accelerating the inclusion and recognition of our current and former military members through the employment life cycle at Owens Corning. In elevating our veterans, we believe we will strengthen our company and our communities.

Throughout the year, Salute presented a number of events and volunteer activities. In April 2022, the group hosted a talk with Gold Star spouse Tiffany Eckert, whose husband Andy Eckert was killed in Iraq in 2005, to raise awareness about the sacrifices of Gold Star families. On Memorial Day, Salute organized volunteers to place flags on veterans’ graves, For Veterans Day, they presented a talk from retired Army Chief Warrant Officer 2 Mitch Wiese, an employee at our plant in Delmar, New York, U.S., who served as a Black Hawk medevac helicopter pilot in Afghanistan. Salute also worked with Northwest Ohio Military Friends, providing volunteers at the annual holiday celebration for the 180th Air National Guard.

As Salute works to achieve their mission, their new areas of focus in 2023 will include candidate assessment, recruiting and retention, and recognizing the balance needed to ensure that our veteran employees feel supported in their work life. In addition, Salute will also seek to assist with the transition from military life into the corporate world.
**Women’s Inclusion Network**

The Women’s Inclusion Network (WIN) is a group of highly engaged, empowered, and compassionate people committed to developing outstanding women through professional development, and community involvement.

WIN hosts several internal and community events throughout the year. CEO Brian Chambers hosts a panel discussion, candidly answering questions from WIN membership. The group partners with Aurora Project, sponsoring job skills training and providing, providing volunteers for concession sales at the Mud Hens games and assists with a community garden. WIN also actively supports STEM Goes Red for Women hosted at world headquarters. Partnering with the American Heart Association, STEM Goes Red is a program that spotlights careers in science, technology, engineering, and mathematics to young women in middle school. In 2022, the world headquarters hosted 100 young women from Toledo area schools and with help from area universities and businesses, bringing to life the possibilities of STEM careers for young women. WIN is also partnering with ProMedica, a Toledo, Ohio, U.S.-based healthcare organization, on monthly wellness challenges to help our audience build healthy habits for their physical health and mental well-being.

Women in Operations (WIO), a chapter of WIN, is dedicated to supporting and elevating the role of the women on our operations teams across all three of our businesses. Throughout 2022, WIO sponsored several events, including the following:

- The Roofing business hosted a conference in November, themed “Connection and Growth.” The event, which brought together nearly 50 salaried women employed at plants across the U.S. and Canada, included workshops on development planning, personal branding, and building confidence.

- The Composites business hosted a workshop encouraging men in leadership positions to sponsor women. Sponsorship combines allyship, mentorship, and coaching to help advance careers. Sessions provided insights into how men can intentionally help women realize their aspirations while considering the unique way women grow and develop in their careers.

- Twelve women in the Insulation business participated in a multiweek development program, in which they worked with an external coach to drive career advancement while building confidence and enhancing vital leadership skills. Women leaders learned to move out of their comfort zones, challenge current ways of thinking, and apply skills for improved performance.

**Courageous Conversations**

Another way we engage our employees — and demonstrate the value we place on them and their various points of view — is through our Courageous Conversations series. These virtual discussions provide opportunities for employees to come together and participate in open dialogues to better understand each other’s differences and recognize the ways that diversity can strengthen our company and our community.

Courageous Conversations are held virtually, which makes participation easier for people around the world; often, more than 100 employees participate. Topics have evolved from broader explorations of race, gender, and identity to discussions of specific issues, including topics like gun-related violence and external events, systemic racism, code switching and its impact in the workplace, mental health, psychological safety in the workplace, inclusion and diversity at plants, and more.

These topics can be sensitive in nature, but we find that participants are quite willing to lean into difficult territory, resulting in discussions that are productive and encouraging. In 2022, we again had a year-over-year increase in participation in these conversations, going from 412 employees across 57 locations in 2021, to 526 employees across 72 locations in 2022. Although the themes of each conversation varied and brought unique sharing and learning, a few high-level themes emerged:

- Employees want to continue to provide our leaders with the tools to help have the right conversations and step into this space
- Employees want to continue to enable and help all people at Owens Corning to have difficult conversations and overcome fear associated with them
- Employees want to continue to have these conversations and continue to add more training and education around inclusion and diversity in general
- Allyship is important — employees want to continue to discuss how to be an ally
Ensuring Diversity in Leadership and Succession

A diverse workforce provides us with the different experiences and unique perspectives needed to deliver better results for our customers. We work to increase gender equality in the workforce and expand diversity in our leadership. In addition, greater diversity helps colleagues from all walks of life envision their own career paths.

In conjunction with our leadership targets for women and people of color, we have set targets related to succession into leadership roles. Specifically, we have targets for 35% representation by women and 22% people of color representation among successors for identified key roles. These targets are part of our overall succession goals for 2030.

Women in Leadership

Several years ago, we formalized our commitment to putting women in leadership roles by establishing a target in which 25% of people in leadership roles are women. We reached this target in 2019 and continue our efforts to maintain and increase this percentage. This effort is aligned with our 2030 goal to have women fill 35% of global mid-level leader, director, and vice president roles.

We are also working to improve women’s representation across our business, especially in operations, manufacturing, and our commercial sales organizations. We are undertaking a number of programs to help us better understand what we can do to help women thrive in their work.

### Percentage of Women Leaders

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<tr>
<th>Year</th>
<th>Goal</th>
<th>2018 Baseline</th>
<th>2019</th>
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### Percentage of Women in Successor Pools

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People of Color in Leadership

As part of our 2030 goals, we have set a target that people of color will fill 22% of our U.S. mid-level leader, director, and vice president roles. In 2022, our representation for these roles was 17%, while overall, approximately 47% of U.S. hires were people of color.  

This voluntarily disclosed data is only available for our U.S. workforce. On page 212, we discuss our commitment to diversity in our pool of succession candidates for leadership roles, with respect to women and people of color.

![Percentage of People of Color Leaders in the U.S.]

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<th>Year</th>
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![Percentage of People of Color in U.S. Successor Pools]

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![Percentage of Roles in the U.S. Filled by People of Color]

- **35%** POC in the organization (U.S. only)
- **19%** POC in management positions out of total management workforce (U.S. only)
- **18%** POC in top management positions (maximum two levels away from the CEO or comparable position) out of total top management workforce (U.S. only)
- **16%** POC in management positions in revenue-generating functions (U.S. only)
- **21%** POC in junior management position out of total junior management workforce (U.S. only)
- **16%** POC in STEM-related positions (as a percentage of total STEM positions)
**Local Hiring**

As an organization with operations across multiple geographies, we believe it is important to focus on local hiring. In doing so, we can optimize costs and efficiency, as well as support economic growth in the areas where we operate.

As of the end of 2022, 20 of the 22 members of our operating committee (comprising general managers and key business leaders) live in or are citizens of the local country where they are assigned. The two senior leaders who were not sourced locally are internal transfers, assigned to international locations as expatriates for the opportunity to expand their skills and grow as global leaders. We believe these select opportunities lead to increased cultural and business intelligence.

47% of U.S. hires identified as people of color in 2022, up from 40% in 2018.

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**Percentage of Roles Across the Company Filled by Women**

- **20%** Women in the organization
- **26%** Women in top management positions (maximum two levels away from the CEO or comparable position) out of total top management workforce
- **26%** Women in management positions out of total management workforce
- **26%** Women in junior management position out of total junior management workforce
- **28%** Women in management positions in revenue-generating functions
- **24%** Women in STEM-related positions (as a percentage of total STEM positions)

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**Percentage of Women in Middle and Upper Management**

- **33.3%** All Levels
- **33.7%** Mid-level, Director, and VP
- **34.1%** All Levels
- **34.1%** Mid-level, Director, and VP

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**Local Hiring**

As an organization with operations across multiple geographies, we believe it is important to focus on local hiring. In doing so, we can optimize costs and efficiency, as well as support economic growth in the areas where we operate.

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47% of U.S. hires identified as people of color in 2022, up from 40% in 2018.
THE FUTURE OF INCLUSION & DIVERSITY AT OWENS CORNING

We continue to build upon our foundation of inclusion and diversity because we understand that people perform better when they feel valued and understood. We also recognize that there is ample evidence indicating that diverse groups consistently outperform less diverse groups. As we work to promote inclusion and diversity throughout our operations, we will remain responsive to the needs of our people.

The restructuring of our inclusion and diversity council, described on page 222, is a great example of our commitment to the specific needs of our people. We will focus on setting local agendas and activities that are tailored to each region where we operate. This will help ensure that we are fostering an environment where our people can be their most authentic selves in the workplace — and empowering people in truly meaningful ways.

Photo submitted by: Troy Zimmerman | Granville, Ohio, U.S.
COMMUNITY ENGAGEMENT

In this chapter:

- 2030 GOALS FOR COMMUNITY ENGAGEMENT
- 2022 COMMUNITY IMPACT BY THE NUMBERS
- OUR PHILANTHROPIC INFRASTRUCTURE
- OUR PRIORITIES AND PARTNERSHIPS

Being a good citizen means doing your part to make your community a better place — Owens Corning believes that the same is true for corporate citizenship. As a Fortune 500 company with 19,000 employees in 31 countries around the world, we know that we must give back to the communities where our people live and work.

Our work has helped build safe, efficient housing for people who may not otherwise have access, it’s increased educational opportunities for underrepresented communities, and it’s helped improve access to health and nutrition for people in need. With all our community engagement initiatives, we have endeavored to move beyond monetary giving and create opportunities for our employees to take an active role through volunteerism.

When we give back to our communities, we are truly living our mission, our purpose, and our values — making the world a better place and building a more sustainable future in ways that are global in scope and human in nature.

The social data in this chapter marked with a * sign were independently assured to a moderate level by SCS Global Services. The social data in this chapter marked with a ^ sign were independently assured to a high level by SCS Global Services. For more information on the assurance process see About the Report, and for our verification statement please see Appendix F.
When our facilities engage with their communities, our employee volunteers see firsthand the difference each individual can make. Our employees tell us that working for a company that supports volunteerism is very important to them, and we have seen that their participation in Owens Corning-sponsored outreach strengthens their pride in the company.

As part of our aspiration for 100% employee community engagement through company-sponsored outreach, we continue to engage our facilities around the world in a wide range of community projects. We had set a target for 100% facility engagement by the end of 2022, which served as a foundation for our broader 2030 goal. While we did not achieve this target, due to declines related to the COVID-19 pandemic, company-sponsored community outreach continued to rebound. We are proud of the fact that we achieved 100% facility engagement in North America and 80% facility engagement globally, as it demonstrates our employees’ eagerness to give back to their communities. This engagement includes both volunteerism and financial support.

In 2022, Owens Corning employees volunteered 8,650 times, up 39% from 2021. While our ability to track and measure employee volunteerism improves every year, we are currently only able to track the number of volunteer experiences and not individual volunteers. The number of volunteer experiences serves as an informative reference as we expand our reach to all global facilities. Volunteerism at Owens Corning-sponsored events totaled 31,067 hours, an increase of 32% from the 23,574 hours in 2021. The work is valued at $29.95 per hour, totaling $930,442.

Our employees’ dedication to volunteerism is still a driving force in our financial support. In 2022, 18% of our donations were charitable contributions and 82% were community investments. Cash contributions totaled $6,246,767. In-kind giving totaled $1,401,837, including $1,337,619 in product donations.

All our giving is accomplished with a small management overhead of $586,957, which includes salaries and fringes, computer equipment, phone equipment, travel, and other miscellaneous expenses.

When our facilities engage with their communities, our employee volunteers see firsthand the difference each individual can make. Our employees tell us that working for a company that supports volunteerism is very important to them, and we have seen that their participation in Owens Corning-sponsored outreach strengthens their pride in the company.

As part of our aspiration for 100% employee community engagement through company-sponsored outreach, we continue to engage our facilities around the world in a wide range of community projects. We had set a target for 100% facility engagement by the end of 2022, which served as a foundation for our broader 2030 goal. While we did not achieve this target, due to declines related to the COVID-19 pandemic, company-sponsored community outreach continued to rebound. We are proud of the fact that we achieved 100% facility engagement in North America and 80% facility engagement globally, as it demonstrates our employees’ eagerness to give back to their communities. This engagement includes both volunteerism and financial support.

In 2022, Owens Corning employees volunteered 8,650 times, up 39% from 2021. While our ability to track and measure employee volunteerism improves every year, we are currently only able to track the number of volunteer experiences and not individual volunteers. The number of volunteer experiences serves as an informative reference as we expand our reach to all global facilities. Volunteerism at Owens Corning-sponsored events totaled 31,067 hours, an increase of 32% from the 23,574 hours in 2021. The work is valued at $29.95 per hour, totaling $930,442.

Our employees’ dedication to volunteerism is still a driving force in our financial support. In 2022, 18% of our donations were charitable contributions and 82% were community investments. Cash contributions totaled $6,246,767. In-kind giving totaled $1,401,837, including $1,337,619 in product donations.

All our giving is accomplished with a small management overhead of $586,957, which includes salaries and fringes, computer equipment, phone equipment, travel, and other miscellaneous expenses.
**SINCE 2016**

- **404** new roofs provided to veterans in need through the Roof Deployment Project
- **741** home builds, renovations, or improvements in the U.S., Canada, and China through Habitat for Humanity
- **22,881** children provided with access to computers
- **3,035** provided with access to clean water
- **1,281,442** meals packed and served globally by Owens Corning volunteers
- **88,798** hygiene or supply kits packed

**2022 COMMUNITY IMPACT BY THE NUMBERS**

- **> $8.5 MILLION** contributed or committed through multi-year agreements to promote racial equity
- **> $360,000** humanitarian relief related to the war in Ukraine from both the Owens Corning Foundation and employee giving
- **> $1.3 MILLION** in product donations to nonprofit organizations
- **> $6.2 MILLION** total cash contributions to nonprofit organizations from Owens Corning and the Owens Corning Foundation

**WORLDWIDE OPERATIONS ENGAGED IN COMMUNITIES THROUGH VOLUNTEERISM OR OTHER FORMS OF SUPPORT**

**HUMANITARIAN RELIEF RELATED TO THE WAR IN UKRAINE FROM BOTH THE OWENS CORNING FOUNDATION AND EMPLOYEE GIVING**

**TOTAL CASH CONTRIBUTIONS TO NONPROFIT ORGANIZATIONS FROM OWENS CORNING AND THE OWENS CORNING FOUNDATION WORLDWIDE OPERATIONS ENGAGED IN COMMUNITIES THROUGH VOLUNTEERISM OR OTHER FORMS OF SUPPORT**

**CONTRIBUTED OR COMMITTED THROUGH MULTI-YEAR AGREEMENTS TO PROMOTE RACIAL EQUITY**

**IN PRODUCT DONATIONS TO NONPROFIT ORGANIZATIONS**

**COMMUNITY ENGAGEMENT**
Our community initiatives are structured around three key priorities, which are aligned with specific U.N. Sustainable Development Goals (SDGs) that relate to our global communities.

- **Safe & Efficient Housing (Sustainable Cities and Communities — SDG #11).** As a producer of residential and commercial building materials, we are well-positioned to help those who are unable to obtain shelter through traditional means.

- **Basic Health & Wellness (Good Health and Well-being — SDG #3 / Clean Water and Sanitation — SDG #6).** We seek to extend our culture of wellness beyond the workplace and into the communities where we serve.

- **Educational Opportunity (Quality Education — SDG #4).** By encouraging learning around the world, we believe we can nurture the next generation of leaders and further our goals far into the future.

Whenever possible, Owens Corning combines our philanthropic activity with employee volunteerism, encouraging them to be fully engaged with their communities. In addition, we extend our contributions through our vast network of contractors, whose track record of excellence offers an added advantage as we seek to advance our efforts.

### The Owens Corning Foundation

The Owens Corning Foundation is a 501(c)(3) nonprofit organization established in 1978 to enhance lives through charitable contributions. The Foundation supports Owens Corning’s stakeholder communities globally through strategic partnerships. Additionally, the Foundation engages employees through multiple programs designed to encourage volunteerism and giving.

This corporate citizenship program is managed under the umbrella of Owens Corning's corporate affairs department. The president of the Owens Corning Foundation also serves as the director of community affairs and is responsible for developing and implementing our companywide corporate citizenship strategy. The director of community affairs reports to the vice president of corporate affairs with additional oversight from the Owens Corning Foundation board.

In addition to regular contact with the chief executive officer, the director of community affairs reports each year to the full executive committee or a member of the executive committee. This helps ensure that the Foundation’s efforts are aligned with and in support of our overall approach to corporate citizenship and philanthropy. Each year, the program is benchmarked against Giving in Numbers, a survey from the Chief Executives for Corporate Purpose (CECP) on corporate giving and employee engagement at the world’s largest companies. Budgets and programs are then planned accordingly, with a constant focus on meeting our goals for facility engagement. Going forward, this process will also inform our plans to engage 100% of employees by 2030.

### Global Charitable Partners

Owens Corning works with the following organizations to identify appropriate charities in our various regions around the globe, perform the necessary due diligence required by the U.S. Internal Revenue Service, and transfer the funds. All these organizations specialize in helping corporate foundations make grants in countries outside of the U.S.

- **Charities Aid Foundation**
- **Give2Asia**
- **King Baudouin Foundation**
- **UNICEF**
- **United Way Worldwide**

Examples of the contributions made by the Owens Corning Foundation based on the guidance provided by these organizations can be found throughout this chapter.

Photo submitted by:  
Dr. Bhalchandra Pedhambkar | Taloja, India  
Blood donation at Taloja plant.
Engaging with Our Communities

Our approach to corporate citizenship empowers our employees to support their communities in ways that are truly meaningful to the people we serve. Our metrics-driven approach helps us gauge our real impact around the world.

The Owens Corning Foundation provides financial support through strategic partnerships with nonprofit organizations that align with our corporate citizenship strategy and key business drivers. Our partnerships frequently include financial contributions from the Owens Corning Foundation, product donations, and employee volunteerism. We also provide support through our employee matching gift programs.

■ Assessing Local Community Needs. Many of our partnerships address findings from community needs assessments, which help us identify needs, look for synergies with our operations, and determine opportunities for volunteering.

■ Engaging Our Employees. We choose to support projects based on their fit with our areas of focus and potential volunteer opportunities for our employees.

■ Measuring Our Impact. To ensure that our corporate citizenship program is both business-relevant and meaningful to our local communities, we regularly gauge its impact and verify its alignment with our key business drivers. Our metrics include:
  • Facility engagement in community service projects
  • The number of volunteer hours and other employee engagement metrics
  • Completion of contractor-related projects
  • The number of homes that have been built or renovated in each community
  • The number of homes that have been roofed or insulated through product donations or other work with strategic partners
  • The number of individuals who have received vocational training or scholarships
  • The number of individuals who have benefited from clean water and/or sanitation

BENEFITING PEOPLE & COMMUNITIES

The priorities Owens Corning has set for housing, health, and education guide all aspects of our community engagement initiatives. The examples seen throughout this chapter represent some of our most prominent efforts. Throughout the year, our people take action in their communities in important and meaningful ways, and our charitable giving extends beyond the stories shared here.

Safe & Efficient Housing

As a global building and construction materials leader, Owens Corning is dedicated to expanding access to safe, energy-efficient housing. We have partnered with several organizations whose missions are compatible with ours, and together we are achieving tremendous results.

Habitat for Humanity

Our collaboration with Habitat for Humanity supports the building and improvement of homes in Owens Corning communities across the U.S. and internationally. The company donates building materials and employees volunteer their time, providing safe and energy-efficient housing for those in need. Throughout 2022, Owens Corning helped build, renovate, and improve 15 homes. To support this work, Owens Corning and the Owens Corning Foundation provided Habitat for Humanity with financial support and in-kind donations totaling $635,035.

In 2022, Owens Corning employees participated in two builds in conjunction with Maumee Valley Habitat for Humanity. A full house build was completed in July, with 110 volunteers coming together to build a home for a mother and her children. This year’s Women’s Build in September saw 26 volunteers building a home for a family in need.

World Vision

Owens Corning collaborates with World Vision, an organization serving children, families, and their communities, on projects in which our donated products make a difference to individuals whose homes need significant repairs. Through our efforts in 2022, Owens Corning donated enough material to roof or insulate 677 homes in collaboration with the organization.
Home Rescue Program

The Home Rescue Program is a community partnership that funds critical home repairs in distressed neighborhoods in Toledo, Ohio, U.S. The program is funded with $1.5 million from the U.S. Department of Housing and Urban Development’s Home Investment Partnerships Program. This funding is provided to the city of Toledo and is administered by the Maumee Valley Habitat for Humanity.

Owens Corning is donating construction materials and the Owens Corning Foundation is providing financial support for this initiative in the Junction neighborhood in central Toledo. In addition, the support will extend to a new Habitat for Humanity housing development in Junction, which began construction in 2022. The repairs address overall code violations, energy efficiency, and lead safety issues in owner-occupied homes. The program will benefit low- to moderate-income Toledo homeowners.

Additional Contributions

Beyond the partnerships outlined in this chapter, we offer our financial support, products, and volunteers to benefit communities where we work and live. Our contributions help in the following areas:

- Building and rehabilitation of safe, efficient housing
- Neighborhood revitalization projects
- Construction and support of shelters and community centers
- Disaster relief
- Racial equality

Like many companies, we are frequently approached with requests from charitable organizations. A substantial number of requests for one-time gifts come from the Toledo, Ohio, U.S., area, the location of our world headquarters. As the sole Fortune 500 company in the city, we believe it is important to maintain a significant presence; therefore, we often sign on as a corporate sponsor at events and fundraisers throughout the region. We often donate used office furniture and building materials to local charities, and we also allow them to use our facilities for events. These donations are all provided directly from Owens Corning, rather than through the Foundation.

Improving the Lives of Veterans and Their Families

Owens Corning believes that we owe a special debt of gratitude to veterans of the U.S. Armed Forces, and we have made them and their families a special priority in our giving. We are proud of the partnerships we have established with the following organizations, each of which is making a real difference for U.S. veterans across the country.

The Gary Sinise Foundation

Founded by actor and philanthropist Gary Sinise, the organization supports U.S. defenders, first responders, veterans, and their loved ones. Our partnership directly supports the R.I.S.E. (Restoring Independence, Supporting Empowerment) program, which builds specially adapted homes for severely wounded U.S. military members and their families.

We donate insulation and roofing products for homes built through the program and work with contractors who volunteer in the construction of those homes. Our commitment to supporting safe, efficient housing for people in need makes R.I.S.E. a perfect fit for Owens Corning. As our employees — especially those who have family members in the armed services — see the difference these new homes can make for U.S. veterans, our participation is a true source of pride.

We also support the Gary Sinise Foundation’s Snowball Express, which serves the surviving spouses and children of fallen heroes. They are committed to year-round programming and support that helps families honor their fallen hero, encourages them to make new memories, and provides opportunities to connect with others who understand their experience. They show appreciation to and love for families and the children who continue to bear the ultimate meaning of service and sacrifice.

Photos courtesy of Gary Sinise Foundation:
Left:
Army Sgt. Christopher Kurtz | Nashville, Tennessee, U.S.

Right:
USMC SSgt Stuart DiPaolo | San Diego, California, U.S.
Roof Deployment Project

Since 2016, Owens Corning has partnered with our Platinum Preferred roofing contractors in the Roof Deployment Project. Through this program, contractors are given the opportunity to volunteer their services to a veteran in need, while Owens Corning donates the roofing materials. As of year-end 2022, 404 veterans have benefited from the program. We have created a network of charitable partners, who have expanded access into markets where there is need, making it possible for more contractors to participate in the program. In 2022, 80 veterans received new roofs.

Folds of Honor

In 2022, Owens Corning established a partnership with Folds of Honor, a U.S. organization that helps provide the families of fallen and disabled service members and first responders with educational scholarships. Our Salute affinity group supported the organization during their Patriot Golf Day at Inverness Club in Toledo, Ohio, U.S. In addition, Folds of Honor was the featured charitable partner at our annual supplier event and received a significant contribution.

Basic Health & Wellness

Health and wellness represent one of the material topics on Owens Corning’s sustainability journey, and we believe that it should be a priority in the areas we serve as well. We collaborate with a range of partners around the world, providing healthy meals, necessary medical supplies, and basic needs such as clean water and sanitation.

Connecting Kids to Meals

Owens Corning provides support for Connecting Kids to Meals, an organization that provides free, healthy meals to children in low-income and underserved areas throughout the Toledo, Ohio, U.S., area. Since beginning operations in 2002, Connecting Kids to Meals has served over six million meals to children in need.

La Cantine Savoyarde

Our support for this organization, which provides meals for people in need (primarily the homeless and refugees making their way from Italy), has been a mainstay of our charitable giving in Chambéry, France, serving meals there since 2017.
Clean Water & Sanitation in India

In conjunction with our health and wellness initiatives, we include access to clean water and sanitation in our community outreach priorities.

Our efforts in India are based on a thorough study conducted by United Way of Mumbai to assess the most urgent needs in the villages near our plants. The report pointed specifically to health, education, and access to safe drinking water. To help address their needs, Owens Corning has set up sanitation and clean water stations, benefiting migrant children attending schools located around our plants. For girls reaching puberty, the addition of bathroom facilities goes beyond basic sanitation needs — it makes it possible for them to remain in school. By continuing their education, they have greater opportunities for independence and success as adults.

Educational Opportunities

We believe in providing people of all ages with opportunities for learning and advancement. To support this belief, we partner with schools and organizations to provide access to education and career training. Through these efforts, we are helping people around the world grow and succeed.

Jill of All Trades

In Canada, as in the U.S., there is a great and growing need for workers in the skilled trades. Currently, women in Canada make up less than 4% of that workforce, meaning there is a significant opportunity to encourage women to consider the trades as a career option.

Working with Conestoga College, we have made a two-year, $200,000 commitment to serve as the lead supporter for a program called Jill of All Trades. A successful event at Conestoga since 2014, Jill of All Trades provides hands-on experience for young women in grades 9 to 12 through a variety of skilled trades workshops. In 2022, more than 800 young women participated in this program.

Our commitment has provided support to expand beyond Conestoga College and take the program across Canada. This partnership also provides a cost-effective way for our Foundation to serve as an inclusion and diversity leader in Canada — while also helping to fill essential positions at Owens Corning and for our customers in the building materials industry.

VOCATIONAL TRAINING IN INDIA

Owens Corning is committed to providing a better future for people throughout the Taloja, India, region. One of the best ways to do that is by sponsoring vocational training programs that are helping young people and women develop the knowledge and skills needed to instill self-reliance and enable them to support their families. One program taught 30 young people basic computer skills, including Microsoft Word, Excel, and PowerPoint, as well as internet use and email. This job readiness program was made available to young adults ages 18 to 25.

In 2022, 30 women learned valuable tailoring skills such as basic embroidery, stitching, and dressmaking. Participants were expected to demonstrate a theoretical and practical understanding of tailoring, and they were evaluated on the basis on attendance, punctuality, and class participation.

One participant, Surekha, cares for a family of seven, including a husband who is experiencing hearing issues. She is excited about the possibilities this program offers. “My prayers are answered, and I am able to follow my passion,” she said. “I look forward to a promising future and to provide a hearing aid to my husband. All my friends here are really cheerful, and I have also gained new friends because of Owens Corning. Thank you for changing my life and making it better for me.”

These vocational training programs are part of a larger community engagement initiative that helped Taloja earn Owens Corning’s Team Volunteer of the Year Award, discussed on page 247. As we see the tangible difference we are making in people’s lives in Taloja and throughout India, we live the meaning behind the Indian saying, “Vasudhaiva Kutumbakam” — “the world is one family” — as well as our own core value that we are global in scope and human in scale.
Asha Burry, national human resources leader for Canada, believes that when it comes to giving back to the community, Owens Corning’s approach is unique in that we empower our people to volunteer for projects where they feel they can make the most significant impact. The project Asha feels most passionate about is Jill of All Trades, discussed further on page 241. For her, Jill of All Trades represents the best of what Owens Corning outreach can do for communities, delivering support in ways that can genuinely help people in need while also providing opportunities for our employees to come together in service to others. She discusses Jill of All Trades and how it ties to Owens Corning’s larger sustainability aspirations.

On how Owens Corning is supporting a worthwhile cause

When we started to work with Conestoga College, we realized that there’s a stereotype that the trades are not a career option for women. Jill of All Trades is taking away those stereotypes by providing young women with an opportunity to try the trades out. A few of us from Owens Corning are on the planning committee that has helped take Jill of All Trades events from one or two colleges to all across Canada. Then there is a second team of wonderful volunteers who come out from the plants, the sales team and the marketing team. At the events, they put on workshops, and educate young women about opportunities in building materials industry. So with the help of our people, young women can try building a wall, putting insulation in a wall or putting shingles on a roof. It’s extremely empowering for them.

On connecting community engagement to other sustainability topics

Owens Corning is assisting young women in engaging in the trades for the first time safely and systematically. Owens Corning colleagues teach these young women safety lessons they can take with them throughout their lives. Our work also expands on our inclusion and goals; we are developing these concepts outside the confines of the company. We’re showing young women that there are other women out there who can thrive in an organization such as Owens Corning.

On the real impacts that giving back can have

We’re all one decision away from being in a different situation. So if we do what we can to help expose people to different things and make different decisions, they may make impactful life decisions. If you can even change one life, that’s the most important gift you can give to the world. Some of these young women come from situations that we can’t even imagine. So to see them come in in the morning and see what they can accomplish, and to walk out afterwards with something they made and be proud of it that’s a feeling that you will never get from anything else.

"In Jill of All Trades, Owens Corning has provided a very safe space for young women to explore trades surrounded by very encouraging colleagues.”

Photo courtesy of Asha Burry.
BGSU School of the Built Environment

In 2020, the Owens Corning Foundation directed a gift, disbursed over five years, to support underrepresented students in the School of the Built Environment within Bowling Green State University’s College of Technology, Architecture, and Applied Engineering. The $1 million gift will create the Owens Corning Scholars Program for students studying architecture, construction management, or other majors in the building sciences field.

To date, 12 students from underserved communities are enrolled in the program in majors including architecture, construction management or other majors in the building sciences field.

Posse 33

After completing a community needs assessment with the European-based agency Wider-Sense, we discovered that Posse 33, which focuses on fostering inclusive urban cultures, is the most promising emerging youth association in Chambéry, France.

Posse 33 began as a rap school for marginalized children, based upon the belief that street culture could become a point of contact with youth, which would then build a safe space for the expression and mentorship of underprivileged children. The organization’s success led to the expansion and consolidation of its programs for older age groups (15 to 25 years) aimed at the promotion of their inclusion and growth.

In the past, funding from the Owens Corning Foundation supported the expansion of Posse 33’s reach through the development of a youth empowerment program (ages 12 to 25 years) in its Chatagnier location. The project aims to empower youth by providing comprehensive support mechanisms, such as the creation of expression rooms, the support of an educational or professional project, and opportunities for community engagement.

North Bridge

The Owens Corning Foundation is in a five-year agreement to donate $1 million in support of a workforce development program at an innovation hub in downtown Toledo. The innovation hub and program are operated by Bitwise Industries, a California-based tech company that focuses on connecting people from marginalized communities and systemic poverty with the skills and resources necessary to access opportunity in the tech industry.

IBAIS School for the Hearing Impaired

For years, Owens Corning and the Owens Corning Foundation have provided support for this school in Tlaxcala, Mexico, including partnering with the Mexican Red Cross to fund the construction of the school, as well as equipment and supplies. Several Owens Corning employees have volunteered their time to participate in these initiatives.

Home-School Perpetuo Socorro

For several years, the Owens Corning Foundation has supported the Home-School, which provides housing and education for young girls taken from homes affected by domestic violence. The Owens Corning Foundation continued to provide financial support to the school in 2022, funding doctors, psychologists, teachers, drivers, and basic needs such as food. In addition, Owens Corning employees host a range of events throughout the year that benefit this school.

In-Presa Cooperativa Sociale

Based in Besana, Italy, this organization provides hundreds of underprivileged youths with training and access to employment opportunities each year, with outstanding results — 75% find a job within six months. In addition to professional courses and diplomas in the fields of hospitality, catering, and electronics, the organization offers tutoring and apprenticeships for youths between the ages of 16 and 20 years who have dropped out from formal education and need to rebuild their confidence. Several Besana employees volunteer their time with the organization, and funding from the Owens Corning Foundation was used to build a mechanical laboratory for vocational training.

Commitment to Racial Equity

In addition to the priorities described on page 222, Owens Corning has recognized the need to extend our commitment to inclusion and diversity into the cities where we serve. By working to create a better place in communities that are too often underserved, we are doing even more to live our purpose as a company.

Local Initiatives Support Corporation Toledo

In Toledo, families of color are half as likely as white families to own their own home. In an effort to close the racial gap and expand homeownership opportunities, the Owens Corning Foundation has made a $1 million, multi-year commitment to Local Initiatives Support Corporation (LISC) Toledo, a community development financial institution.

This commitment also supports Core City Rehabilitation projects, in which LISC collaborates with neighborhood partners to identify, acquire, and renovate homes throughout the downtown Toledo area. The homes are then sold to owner-occupants, which helps increase property values and stability in these communities. Among the homeowners who benefit from this project, 70% are people of color, 57% have a woman as the head of the household, and the average income is $41,000. In addition, our commitment will fund efforts to grow the capacity of small contracting businesses owned by women and members of other underrepresented groups, as well as invest in civic and community engagement projects.
Toledo Excel

Toledo Excel is a scholarship incentive program that helps underrepresented Toledo Public Schools (TPS) students succeed in college. The program connects students with mentors, academic support, and wraparound services while they attend TPS high schools. Upon completion of the program, students receive four-year scholarships to the University of Toledo.

Through a multiyear commitment, the Owens Corning Foundation has provided approximately $300,000 in scholarships for TPS students who participated in the program. To date, 20 Toledo Public School students have entered the program. They will enter college in 2023. In addition, the Owens Corning Foundation sponsored the 2022 Toledo Excel Conference for Aspiring Minority Youth. The keynote speaker was Jeff Johnson, an award-winning journalist, communications specialist, and thought leader. Owens Corning president of Composites Marcio Sandri also spoke at the event.

STRENGTHENING COMMUNITY TIES IN COMPTON

Owens Corning is proud to be part of the community in Compton, California, U.S., where our roofing and asphalt plant has been a presence for over 40 years. The connection we have with the city and its people is strong, and we believe that our recent outreach in the area will strengthen it even further.

According to Matt Prue, site leader at the Compton plant, our people's activities are a reflection of their close ties to the city. “The Compton workforce really values giving back to the local community,” he said. “Many of our employees are from the area and realize how important it is to give and work with organizations looking to improve Compton.”

In 2022, Owens Corning made financial commitments to two organizations that are doing a great deal to make Compton a better place to live and work. We pledged $100,000 to Habitat for Humanity Greater Los Angeles, with a stipulation that the money be used for builds or renovations within the Compton city limits. In addition, we began a partnership with the Compton Initiative, an organization committed to beautifying the city. Working with thousands of volunteers, the Compton Initiative has painted hundreds of homes, schools, and churches, as well as inspirational murals throughout the area. This year, Owens Corning employees worked with the Compton Initiative to paint a home located a few blocks from the plant.

In addition to these efforts, employees filled backpacks with school supplies and donated them to students at Jefferson Elementary School, which is a short walk from the plant. While their work extends beyond the city limits to include assembling hygiene kits for the L.A. Mission and a beach cleanup with the Surfrider Foundation, their roots lie firmly within Compton. As Matt Prue said, “We want to be part of the solution and look to identify organizations doing the most good in a radius as close to the plant as possible.”

Photo submitted by:
Jacob Ritter | Compton, California, U.S.
Owens Corning volunteers painting a house in Compton, California.
Investments in the Toledo Area

Owens Corning is proudly based in Toledo, Ohio, U.S., and our world headquarters is an iconic part of the downtown region. We are pleased to partner with many of the institutions that make Toledo a great city to live and work.

**Toledo Zoo**

Through a $500,000 donation disbursed over the next five years, the Owens Corning Foundation will support the Toledo Zoo as it provides underserved students, families, and neighborhoods with a unique learning experience about the importance of protecting nature and wildlife.

Project Prairie converts acres of turf grass on school campuses into native prairie habitats. This provides ways for students to learn more about conservation and to understand the prairie's environmental impact on the local ecosystem. Our funding of the Project Prairie initiative will fund 10 prairies a year. The zoo’s goal is to install 20 prairies a year over the next five years across urban schools in northwest Ohio and southeast Michigan.

**Toledo Area Metroparks’ Glass City Riverwalk**

The Owens Corning Foundation has made a $1 million commitment in support of the completion of the Glass City Riverwalk. This new amenity, running along the banks of the Maumee River in downtown Toledo, will provide high-quality greenspace for the entire community. The new Riverwalk will link six different neighborhoods across the city, connecting them in new ways and providing greater equity, access, and experiences for all Toledo residents.

We have committed over $8.6 million through multi-year agreements for work related to racial equity, including over $4.3 contributed by the end of 2022.
EMPLOYEE VOLUNTEER OF THE YEAR:

Jessica Riter
Insulation Manufacturing Financial Analyst, Toledo, Ohio, U.S.

Jessica has been an invaluable part of Owens Corning’s community engagement efforts throughout the year, beginning with our annual Martin Luther King Jr. National Day of Service. Most recently, she helped the community affairs team organize Owens Corning’s Martin Luther King Jr. National Day of Service, and she managed events at the Toledo office. Her main areas of focus included increasing employee involvement, tracking the ways people were volunteering, and overseeing the distribution of blanket kits and T-shirts.

She has also been a strong advocate for Habitat for Humanity, gathering groups of co-workers, family members, and friends to help with several builds each year. As quarterly Red Cross blood drives returned after two years of COVID-19 restrictions, Jessica has resumed her vital role in their planning and management.

In addition, Jessica has served as lead recruiter at the University of Toledo for our Finance and Accounting program, and as an EAP Navigator offering mental health first aid. Her commitment to volunteerism also extends outside Owens Corning, as she is active in her church, her local 4-H club, and in coaching third-grade girls’ basketball.

Jessica regularly serves breakfast at Cherry Street Mission Ministries, a charitable organization that offers food, housing, and hope to Toledo-area people in need. Cherry Street Mission Ministries is so important to Jessica that she donated her $10,000 award to the organization.
RETIREE VOLUNTEER OF THE YEAR

Deb Dauer

A former Toledo employee, Deb is passionate about Aurora Project, which provides safe housing to homeless women and their children. Through the agency, clients address the issues that caused their homelessness while receiving resources needed for job searches, medical care, and other needs. It is the only transitional program of its type in Northwest Ohio that allows women to keep their children while working toward self-sufficiency.

Deb joined the Aurora Project board just as COVID-19 began, organizing several successful events and engaging more than 250 volunteers. In addition, Deb raised money for a community garden to address food insecurities and provides a place of solitude for the residents. The garden features four raised beds, which the residents help plant, water, and weed. They also harvest and cook the vegetables and herbs planted in the garden.

Additionally, Deb volunteered for the Wood County Committee on Aging. When area senior centers shut down during COVID-19, leaving many seniors without a food service, Deb and her husband volunteered to deliver hot meals to local seniors and people who were homebound due to illness. The deliveries also provided seniors with connections to others and enabled volunteers to conduct wellness checks that ensured seniors were safe and well in their homes.

Deb’s other volunteer activities include the Wood County chapter of the Ohio Genealogy Society and the University of Toledo Alumni Association. Since Aurora Project is so important to her, she donated her $10,000 award to the organization.

TEAM VOLUNTEER OF THE YEAR

Taloja, India

The team in Taloja has taken on a wide range of community outreach initiatives, from assisting with COVID-19 relief to providing aid to victims of a devastating flood.

Using an Owens Corning Foundation grant, the team worked closely with public health departments, government bodies, and nongovernmental organizations to help deliver necessary health care. The team helped set up a modular intensive care unit in Mumbai to handle the sudden surge in COVID-19 cases and provided renovations, repairs, and updates to local health centers. Medical equipment was donated to several area health facilities and public health departments, including surgical equipment, pulse oximeters, and ambulances.

In addition, the team distributed over 1,000 ration kits to needy families. Each kit had food sufficient for a family of five for 15 days. A community COVID-19 vaccination program, reaching more than 1,200 people who did not have access to the vaccine, was also led by the group.

In July 2021, torrential rains and floods wreaked havoc in the state of Maharashtra. Many families lost everything and were in temporary shelters. The team focused its efforts on a few remote villages, collecting funds for relief kits, water bottles, medicine and utility kits, T-shirts, floor wiper/cleaner, and dinnerware sets.

Large trucks transported the donations, but they could not reach small villages due to the flooding. Taloja team members used small pickup trucks to distribute materials in the small villages.

While in the villages, volunteers saw residents’ urgent need for temporary shelters. They contacted the Silvassa plant, which immediately sent 1,050 tarpaulin sheets (20 feet by 12 feet) and a prototype to show how to use the sheets to make a temporary shelter. Volunteers distributed the sheets to those in most need.

The Taloja team donated its $10,000 award to United Way Mumbai.
The Future of Owens Corning

Community Engagement

In recent years, much attention has been drawn to issues of racial equity, and Owens Corning has recognized the need to reduce the disparities that have existed in the U.S. for too long. This will continue to be an area of focus for us, and we look forward to more opportunities to address these issues going forward.

It was not surprising that volunteerism among our employees declined considerably during the pandemic, but we are pleased to see that volunteerism levels have exceeded pre-pandemic levels. We continue to hear from our employees that they are glad to be once again engaging with their communities, and we are eager to provide them with more opportunities in the future.

Through it all, we will continue to focus our efforts on meeting the needs of the communities where we operate, providing meaningful volunteer opportunities, and fulfilling the mission of the Owens Corning Foundation by enhancing lives through charitable contributions.

Photo submitted by:
Prathamesh Kulkarni | Taloja, India
Owens Corning Taloja team conducts an annual sports event.
SAFEGUARDING HUMAN RIGHTS

In this chapter:

- FOUNDATIONAL HUMAN RIGHTS DOCUMENTS
- TREATING PEOPLE EVERYWHERE WITH DIGNITY AND RESPECT
- ENVIRONMENTAL JUSTICE AT OWENS CORNING
- IMPLEMENTING OUR HUMAN RIGHTS FRAMEWORK
- MAINTAINING OUR COMMITMENT TO HUMAN RIGHTS

Owens Corning has the privilege of working with people all over the world, and with that comes a responsibility to ensure that those people can enjoy the highest possible quality of life. We strive to treat all people with dignity and respect — and aim to protect their fundamental rights in the places they work and the regions where they live. We are committed to upholding the highest standards for protecting human rights in everything we do, and we expect the same from our entire network of suppliers.

We have set quantifiable human rights targets that mirror the goals we have set for ourselves. Our Supplier Code of Conduct, a key document in our supply chain sustainability efforts, requires the companies we work with to embrace sustainability and share our expectations with respect to human rights.

Our 2030 goal for human rights is to ensure that 100% of our suppliers meet our Supplier Code of Conduct requirements, with special attention to human rights issues such as safety and forced labor. More information about our progress toward these goals can be found on page 120.

Photo submitted by:
Subham Purohit | Taloja, India
Owens Corning Joy of Giving event.
FOUNDATIONAL
HUMAN RIGHTS DOCUMENTS

Owens Corning has built our approach to protecting human rights on the following globally recognized documents:

- The Ten Principles of the United Nations Global Compact
- The United Nations Universal Declaration of Human Rights
- The United Nations Guiding Principles on Business and Human Rights
- The International Labor Organization’s (ILO) Declaration on Fundamental Principles and Rights at Work

These documents have informed the Owens Corning Code of Conduct, including the human rights policies referenced therein, designed to ensure we uphold ethical standards. Our ethics policies are described in detail beginning on page 166.
TREATING PEOPLE EVERYWHERE WITH DIGNITY AND RESPECT

Our approach to human rights is intentionally broad and inclusive. It helps us codify the expectations we have for all Owens Corning’s full-time employees, part-time employees, and temporary staff; the entities we own; the entities in which we hold a majority interest (including joint ventures). Our human rights policy commitments were approved by our general counsel and our chief sustainability officer.

Moreover, we work with our value chain — suppliers, customers, and other business partners — to uphold our human rights principles. We expect them to adopt similar policies and extend the same protections to their stakeholders. Our Code of Conduct and Supplier Code of Conduct provide them with the guidance necessary to prioritize human rights protections in their own operations.

A Framework for Human Rights

The policies we have in place are part of an overarching framework that guides our actions as we strive to be an effective corporate citizen. We are committed to enforcing compliance in the following areas:

Equal Opportunity and Non-Discrimination

Owens Corning strives to foster an inclusive and diverse culture in which all employees feel valued and appreciated. We believe this culture of appreciation helps people engage at their best, knowing they have an equal opportunity to grow and succeed based on their performance, regardless of individual differences. We invest equally in our employees and ensure our corporate culture allows all employees to share their unique perspectives and experiences, learn from one another, and contribute to Owens Corning’s global workplace.

We do not discriminate in employment and advancement opportunities, and we do not tolerate acts of discrimination. To provide equal employment and advancement opportunities to all individuals, employment decisions are based on merit, qualifications, and abilities. Accordingly, it is Owens Corning’s policy to provide employment opportunities without regard to race, color, religion, national origin, age, disability, veteran or military status, pregnancy status, gender, gender identity, sexual orientation, genetic information, or any other characteristic protected by applicable law.

In 2022, the business conduct council reviewed and investigated two reported equal opportunity concerns. Actions for correction and improvements were taken as applicable.

Child Labor/Forced Labor

We do not employ child labor in our operations. We define child labor as work or service extracted from anyone under the age of 16, the minimum age for employment, or the age for completing education in a country, whichever is highest. We also will not knowingly engage with a supplier or distributor or enter into a joint venture with an organization that uses child labor, directly or indirectly.

Similarly, we do not use forced, slave, convict, or bonded labor in our operations, and we will not work with a supplier or distributor or undertake a joint venture with an organization that employs forced labor or people trafficked into employment. Forced labor refers to any work or service not voluntarily performed or extracted from an individual under the menace of penalty or subject to unduly burdensome conditions. These include, but are not limited to, the surrender of government-issued identification, passports, or work permits, or any other limitations inhibiting the employee’s free will with respect to work. Our definitions of slave labor and bonded labor reflect the United Nations Human Rights Office’s Supplementary Convention on the Abolition of Slavery, the Slave Trade, and Institutions Similar to Slavery under Articles 1 and 7. Convict labor refers to any labor performed by a legally convicted person on or outside prison grounds. Where applicable, migrant workers will have the same entitlements as local employees.

We follow the U.S. Securities and Exchange Commission guidelines in disclosing any use of conflict minerals and in conducting reasonable country-of-origin inquiries as required by those guidelines. We also do not tolerate the use of raw materials in any of our products that directly or indirectly contribute to armed conflict or human rights abuses. We follow the Organisation for Economic Co-operation and Development’s Due Diligence Guidance for Responsible Supply Chains of Minerals from Conflict-Affected and High-Risk Areas. Owens Corning supports the participation in legitimate workplace apprenticeship programs, as long as they comply with all applicable laws and are consistent with Articles 6 and 7 of the International Labour Organization (ILO) Minimum Age Convention No. 138 on vocational or technical education and light work. Issues regarding forced or child labor raised through the Business Code of Conduct helpline are reviewed by internal audit and legal compliance.
No cases of forced or compulsory labor were identified or reported in 2022 through our annual supplier survey. Given recent reports of concerns in the mining sector, Owens Corning enhanced its methodology to evaluate risk in this area. Through this process we designed a mechanism to categorize risk and implemented appropriate action plans across the different categories which will be implemented throughout 2023. Owens Corning is committed to working with our suppliers to mitigate known or suspected risks. This remains a focus area on annual surveys.

Owens Corning identified a misapplication of our human rights policy at a location in Canada, which resulted in one individual under the age of 16 being employed part time for clerical work. After learning of the issue, corrective action was swiftly taken that included education and training of our human resource employees, as well as implementing a systems solution that will provide even more stringent and proactive checks within our human resources system by July 2023.

For any known violations Owens Corning builds an appropriate corrective action plan indicating the owner for each mitigation item with expected timelines for resolution. As a company we are committed to ensuring all our operations and suppliers adhere to our policies globally.

**Indigenous Peoples'/Traditional/Land Rights**

We subscribe to the principles of ILO Convention No. 169 on Indigenous and Tribal Peoples wherever our operations may impact the human rights of indigenous peoples. When considering new acquisitions, we seek to confirm a company’s compliance with this convention as part of our due diligence. There have been no issues for Owens Corning involving the rights of indigenous people.

**ENVIRONMENTAL JUSTICE AT OWENS CORNING**

Environmental issues are a global problem with universal impact, but populations in some areas are more directly impacted than others. People in disadvantaged communities may face greater levels of pollution, which is often the cumulative impact of several factors and can be detrimental to their health and well-being. For example, industrial pollution combined with heavily trafficked highways, can exacerbate health issues disproportionately for populations around the world.

There is a real need to address and define these environmental issues and empower people to make informed decisions and take action, regardless of their race, ethnicity, national origin, or income. This is a concept known as environmental justice. While the concept itself has been around for many years, it has become an increasingly vital part of many companies’ sustainability journeys — including Owens Corning’s.

As communities have begun to respond to calls for environmental justice, in the form of regulations and legislation, Owens Corning has taken a proactive position. We have established a steering committee tasked with evaluating best practices to determine how we can incorporate environmental justice considerations throughout our enterprise, enabling us to forward our social responsibility aspirations as part of our overall sustainability goals. While effective enterprise-wide leadership is essential, we also believe that leaders at the plant level play a key role. With many of our employees working and living in these highly impacted areas, they often have great insights into the needs of the communities — as well as the passion to truly improve them.

Many of our current environmental initiatives complement our environmental justice imperatives, and we look forward to implementing new opportunities to bring about environmental change. By ensuring that people are treated fairly and equitably through meaningful engagement, we are fulfilling our values as a caring and collaborative partner in the areas where we serve.
IMPLEMENTING OUR HUMAN RIGHTS FRAMEWORK

We support our human rights commitments through our comprehensive compliance framework, which includes our human rights policy and the supporting policies and documents listed earlier in this chapter. We also have numerous mechanisms in place to ensure that we uphold our high standards for safeguarding human rights as we do business.

Within Our Operations

Owens Corning’s commitment to human rights begins with individuals at each of our sites. We work to provide a work environment where people are treated with respect, and to ensure that our people carry that dedication forward into all their business dealings.

Training Employees on Human Rights

Our Code of Conduct and Business Conduct Policies are extensions of our corporate values, which is why we require 100% compliance. The Code of Conduct and Business Conduct Policies are provided to all employees and are available in 16 languages via our internal network. We also expect all our facilities to display materials that highlight our human rights policies. When a new plant is acquired, the integration team will distribute the Code of Conduct and Business Conduct Policies to the staff, who do not have immediate access to Owens Corning online systems. The Code of Conduct may be distributed using email or an existing intranet site, or physical copies may be disseminated.

Training is one of the core tenets of Owens Corning’s compliance program. One hundred percent of our staff employees are trained on and provide written acknowledgement of the Code of Conduct and anti-corruption and anti-bribery policies. They are enrolled in the Code of Conduct training course at hire. Thereafter, they are required to certify their compliance annually and are given an opportunity to disclose nonconformance. Personnel in key groups and teams such as sales, environmental, safety, and security are given heightened attention for training and compliance. In addition, managers are expected to lead by example and ensure that these policies are incorporated into employees’ daily interactions with colleagues, customers, suppliers, and the public. In 2022, 7,309 employees, which make up about 38% of our employees worldwide, collectively received 4,443 hours of human rights training.

Photo submitted by:
Tommi Lahdensivu | Parainen, Finland
Upgraded production line in Parainen.
Human Rights Assessments

We continue to implement our revised environmental, health, and safety (EHS) audit processes, which include on-the-ground visual observations for elements of our human rights policy. In our last EHS audits, conducted in 2022, we proactively assessed six sites for human rights risks, examining documented evidence and making visual assessments where needed. Our 2022 audits included U.S. sites representing all three of Owens Corning’s business units. All the sites assessed had some type of mitigation plan in health and safety.

High-risk findings are tracked to completion in a corporate findings repository. All risk findings are required to be closed. There were no issues identified through EHS human rights audits in 2022.

Additionally, our internal audit team conducts visual inspections covering forced labor, child labor, unsafe working conditions, and other human rights issues in their on-site assessments, in addition to their standard audit process. This expansion is part of our commitment to ensuring that our workplaces reflect the highest human rights standards, as well as best practices for health and safety for everyone at our sites, including employees, contractors, and visitors. In 2022, the internal audit team conducted 17 internal audits that included a review of human rights risk.

Facility Security

Our approach to facility security has evolved from a focus on property to a focus on people. We prioritize how we can make our facilities safe for people, so they can do their best work.

We have operationalized our focus by implementing robust security standards for all our facilities. These standards provide a common statement of work for all security providers, as well as required training programs that relate to respecting human rights, such as training on appropriate behavior and use of force. One hundred percent of security personnel globally receive training on specific security issues. We also have guidelines to help people leaders recognize and respond to potential workplace violence situations and behaviors of concern. Workplace violence training has been translated into 17 languages and disseminated to global sites. In our most recent training period in late 2021 and early 2022, over 95% of all global people leaders and salaried staff have completed the general training course.

We have established a set of standards related to our human rights priorities for sites where we employ third-party security services. Human rights training, including training in the appropriate use of force, is required by all North American contract security providers. In North America, 100% of security personnel, including those employed by third-party organizations, have received formal human rights training, as of December 31, 2022. We expect guard services to observe and report — never to place themselves in harm’s way or jeopardize the safety of others.
Across Our Value Chain

As a global company, Owens Corning must set a standard for human rights among the many companies with which we do business. This requires a great deal of collaboration, with a focus on enforcing the principles set forth in our human rights policies and managing the known risks that may exist among our suppliers.

Upholding High Standards for Suppliers

Owens Corning seeks to partner with businesses that share our commitment to human rights. We expect our suppliers, customers, and other businesses around the world to uphold the principles in our human rights policy. We also expect them to adopt similar policies in their business practices and within their own relationships with subcontractors and others.

Our Supplier Code of Conduct holds all entities that directly provide goods or services to Owens Corning accountable to applicable laws and principles of ethical business. The Supplier Code of Conduct is explicitly consistent with our human rights policy and includes, for example, expectations related to human trafficking and the sourcing of conflict minerals. Our sourcing and supply chain leaders are responsible for managing human rights issues among our suppliers. They use our Supplier Code of Conduct as a reference to select suppliers, measure their performance, conduct training, and assess risks.

We conduct annual human rights assessments via a survey for our key suppliers, which made up 75% of our sourcing-managed spend in 2022. Over the past three years, 186 suppliers were assessed for their impacts on society and labor practices. None of these suppliers were found to have potential or actual significant negative impacts on society, human rights, labor practices, or the environment.

Managing Areas of Concern

We monitor our suppliers for environmental and human rights conduct, especially in the following areas of potential concern:

- **Sand Mining.** Owens Corning requires the use of sand in our manufacturing operations; as such, we have a vested interest in ensuring a sustainable, responsible supply chain for this essential material. We continue to monitor our sand mining suppliers for environmental and human rights conduct, as this industry has been identified as a risk due to increased sand consumption around the world.

  In 2022, our sand consumption was approximately 780,935 metric tons, with 68% coming from North America. Glass production requires a high grade of sand, which generally comes from mines and quarries rather than riverbeds or shorelines. We are confident in the integrity and continuity of our sand supply base. In addition, our commitment to glass recycling can help reduce our reliance on sand in the production of fiberglass insulation.

- **Conflict Minerals.** Owens Corning does not tolerate the use of raw materials that directly or indirectly contribute to armed conflict or human rights abuses in any of our products. We follow the U.S. Securities and Exchange Commission guidelines in disclosing any use of conflict minerals and in conducting reasonable country-of-origin inquiries as required by those guidelines. We also follow the Organisation for Economic Co-Operation and Development Due Diligence Guidance for Responsible Supply Chains of Minerals from Conflict-Affected and High-Risk Areas.

  Suppliers are expected to have a policy in place to address the responsible procurement of minerals. They are also expected to train appropriate personnel on this policy, implement a risk assessment (supply chain mapping) of all conflict mineral sources, and develop an appropriate risk mitigation strategy for suppliers identified as “high-risk” in the supply chain mapping exercise.

  Owens Corning encourages suppliers to verify the due diligence practices of their suppliers regarding conflict minerals. They are also urged to join or build partnerships with industry organizations that implement due diligence in the mineral supply chain.

Human Rights and Acquisitions

Our human rights policy has become part of our due diligence for potential acquisitions, which are a key element of our growth strategy. This process involves reviewing labor and human rights policies and practices and assessing risks, including evaluating any potential impacts on vulnerable populations such as tribal lands and indigenous people. This policy applies to Owens Corning’s 2022 acquisitions, which are outlined on page 136.
On environmental justice within the human rights framework
I think the principles behind human rights and environmental justice are synonymous. Human rights is broader in scope because we’re talking about issues beyond the environment and public health — child labor, conflict minerals, and more. In the U.S., we talk more in the framework of climate justice while globally, it’s more under the umbrella of human rights. As ESG issues become more front and center, due to shareholder interest and regulatory scrutiny, community engagement will not only be a “sustainability issue” but could ultimately impact a company’s license to operate.

On Owens Corning’s focus on environmental justice
Owens Corning historically has put a lot of emphasis on the communities where our facilities are located to ensure that we’re complying with all regulations and engaging and partnering with our communities. One of the things that Owens Corning has done to start looking at this issue is assessing what we already do that falls under the environmental justice umbrella and identifying potential gaps. The Owens Corning Foundation already does a lot of different community assessments. Our plants are also very engaged at the local level, focusing on community specific activities and investments. However, to take it to the next level, we’re in the process of assessing best practices our plants can deploy to have more meaningful engagement with their neighbors.

On operationalizing sustainability toward environmental justice
Promoting environmental justice at an enterprise level is easy because we’re compliant with regulations. What’s key is looking at each geographic location and implementing community engagement best practices. I think operationalizing sustainability is a great opportunity for environmental justice at the local level — to meaningfully engage all of our communities so that we can impact them in positive ways. And in return, a level of trust is developed. It involves identifying the right community members, having direct conversations, and being transparent about what we do and how we do it. Part of that is doing the background work and figuring out how we assess things at the plant level, how we put a strategy together, and then how we execute it at the at the local level. I’m proud of the work that Owens Corning is doing toward addressing this issue and look forward to what lies ahead.
MAINTAINING OUR COMMITMENT TO HUMAN RIGHTS

Owens Corning’s respect for people’s fundamental rights is all-encompassing. It includes societal issues, such as forced labor and the rights of indigenous people. It also extends into our interactions at the individual level: creating rewarding employee experiences and promoting inclusion and diversity within our operations.

For example, as we consider human rights issues within our organization, we recognize the needs of women, LGBTQ+ individuals, people of color, and other underrepresented populations. To address the needs of these people, we have created affinity groups for our employees, and we have committed considerable financial resources to causes related to racial and gender equity in our communities. This work is described in greater detail throughout this section of the report.

These initiatives are an opportunity to improve people’s quality of life at every level. By affirming the human rights of our employees, members of our communities, and people around the world, we are living our core values, acting in ways that are global in scope and human in scale.

Owens Corning is committed to further transparency as we work to safeguard human rights. In 2023, we will publish a supplemental disclosure which will further demonstrate our dedication to this essential part of our sustainability efforts.

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Photo submitted by:
Erin Caldwell | Toledo, Ohio, U.S.
Celebrating All Souls day in Gniezno, Poland.
ABOUT THE REPORT

Owens Corning’s Sustainability Report gives us an opportunity to demonstrate the work we are doing to fulfill our mission: to build a sustainable future through material innovation. It provides stakeholders with data and information that reinforce our commitment to increasing our positive impacts around the world and reducing potential negative impacts.

This is our 17th annual Sustainability Report, published on May 23, 2023, reflecting the reporting period from January 1, 2022, to December 31, 2022. Our previous report was published on March 24, 2022.

This is our sixth report prepared in accordance with the Global Reporting Initiative (GRI) Standards. We have chosen to provide a comprehensive picture of the most significant impacts on the economy, environment, and people, including impacts on their human rights and how we manage these impacts. We report at this level because we believe that transparency is an essential component of any sustainability effort. In addition, this report addresses disclosures and material issues related to CDP (formerly the Carbon Disclosure Project), the S&P Global Corporate Sustainability Assessment (CSA) and Dow Jones Sustainability Index (DJSI), the United Nations Sustainable Development Goals (SDGs), UN Global Compact Communication on Progress, and other stakeholders’ requests, including the Sustainability Accounting Standards Board (SASB) and the Task Force on Climate-related Financial Disclosures (TCFD). This approach enables us to provide an integrated, comprehensive view of our commitments, progress, and activities related to sustainability and social responsibility.

We focus on creating robust business and reporting strategies that effectively align with the needs and priorities of our company and our stakeholders. We do this by investing substantial time and effort into understanding, prioritizing, and addressing material topics — and reporting on them accurately and transparently. To achieve this, we have developed our materiality matrix to address different stakeholder needs as well as our involvement with the impacts of material topics. To remain informed about changing business contexts, stakeholder requirements, and emerging trends, we regularly review our list of material topics and their relative priority, and we update them when appropriate. A discussion of our ongoing stakeholder engagement can be found on page 28.
For this report, the content and boundaries of material topics were developed and determined based on their impacts — economic, environmental, and/or social. We report on ways that we have caused or contributed to impacts in our material topics, as well as the ways our activities, projects, and services are directly linked to these topics through our business relationships. This includes relationships with entities that we do not control and might not have the leverage needed to effect change in their impacts.

In summary, the boundaries of all impacts cover all our operations around the world, including Asia Pacific, Europe, and the Americas. We consider all our operations to be significant locations of operation. Internal boundaries include all plants and offices owned or leased by Owens Corning. The external boundary includes supplier locations, communities, and customer locations where Owens Corning does business.

**Significant Changes in Scope**

In 2022, Owens Corning acquired WearDeck and Natural Polymers LLC, assumed full ownership of Fibertec, and entered into a joint venture with Pultron. All of these actions are part of our long-term strategy for expanding our market opportunities, and they represent significant changes in scope. More information about these companies can be found on page 136 of this report. In 2022, we divested the facilities in Chambéry, France, as well as Izoplit and Gous-Khroustalny in Russia.

In accordance with World Resources Institute (WRI) protocols, we collected or estimated these companies' utility and production data back to either our base year of 2018 or the year they opened. The revenue denominator we use to calculate our 2030 environmental sustainability goals has been updated to include the acquisition back to the base year of 2018. All locations are included in the environmental baseline and metrics provided in this report, with the exception of Scope 3 emissions. These sites are not part of our reported non-environmental aspects, including HR, safety, supply chain, and corporate philanthropy. This change in scope is applicable across all material topics addressed in our report. The boundaries of our material topics have not otherwise changed.

There have been no material restatements of information in this report.
## Key External Initiatives Adopted by the Company

<table>
<thead>
<tr>
<th>INITIATIVE</th>
<th>ADOPTION DATE</th>
<th>WHERE APPLIED</th>
<th>STAKEHOLDER DEVELOPMENT</th>
<th>REQUIRED BY LAW/VOLUNTARY</th>
</tr>
</thead>
<tbody>
<tr>
<td>UN Global Compact</td>
<td>2010</td>
<td>Companywide</td>
<td>Multi-stakeholder approach to development</td>
<td>Voluntary</td>
</tr>
<tr>
<td>UN Environmental Programme</td>
<td>2010</td>
<td>Companywide</td>
<td>Supplier Code of Conduct</td>
<td>Voluntary</td>
</tr>
<tr>
<td>Universal Declaration of Human Rights</td>
<td>2014</td>
<td>Companywide</td>
<td>Supplier Code of Conduct</td>
<td>Voluntary</td>
</tr>
<tr>
<td>Supplementary Convention of the Abolition of Slavery, the Slave Trade, and Institutions and Practices Similar to Slavery</td>
<td>2010</td>
<td>Companywide</td>
<td>Supplier Code of Conduct</td>
<td>Voluntary</td>
</tr>
<tr>
<td>UN Sustainable Development Goals</td>
<td>2016</td>
<td>Companywide</td>
<td>Multi-stakeholder approach to development</td>
<td>Voluntary</td>
</tr>
<tr>
<td>ISO 14000, ISO 50001, and ISO 45001/OHSAS 18001</td>
<td>Varies by site</td>
<td>All EMS systems are in alignment with ISO standards. Select sites worldwide are certified.</td>
<td>Multi-stakeholder approach to development</td>
<td>Voluntary</td>
</tr>
<tr>
<td>ISO 9001</td>
<td>Varies by site</td>
<td>Select sites worldwide are certified.</td>
<td>Multi-stakeholder approach to development</td>
<td>Voluntary</td>
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<td>Science Based Targets Initiative</td>
<td>2016</td>
<td>Companywide</td>
<td>Multi-stakeholder approach to development</td>
<td>Voluntary</td>
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<td>Science Based Targets Network</td>
<td>2020</td>
<td>Companywide</td>
<td>Multi-stakeholder approach to development</td>
<td>Voluntary</td>
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<td>CEO Action for Diversity &amp; Inclusion</td>
<td>2019</td>
<td>Companywide</td>
<td>Multi-stakeholder approach to development</td>
<td>Voluntary</td>
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</tbody>
</table>
Since 2010, Owens Corning has been a signatory to the United Nations Global Compact (UNGC), a strategic, voluntary policy initiative for businesses committed to aligning their operations with 10 universally accepted principles in the areas of human rights, labor, environment, and anti-corruption.

Principle 7 of the UNGC states that, “businesses should support a precautionary approach to environmental challenges.” The precautionary principle or approach was originally introduced in the 1992 Rio Declaration of Environment and Development. Principle 15 of the Rio Declaration explains that, “where there are threats of serious or irreversible damage, lack of full scientific certainty shall not be used as a reason for postponing cost-effective measures to prevent environmental degradation.”

The precautionary approach calls upon us to diligently assess and manage environmental, health, and safety risks, so we can take appropriate action to prevent harm. We ensure that our products and technology comply with or exceed all applicable laws, regulations, and approval standards to protect the environment and human life and health. In addition, our product stewardship programs are designed to ensure the integrity of our products and the processes used to develop, produce, and manage them. Owens Corning is confident that these efforts are consistent with the expectations of the precautionary approach. More information is available in our Environmental, Health, Safety, and Product Stewardship Policy, found on our sustainability website. As we discuss in detail on page 21, we align our activities with the UN's 17 SDGs. In addition, Owens Corning publicly states our support for the UN Universal Declaration of Human Rights. The 30 articles that make up the Universal Declaration represent a watershed moment in the history of international human rights. As one of the primary driving forces behind the UNGC, the Universal Declaration, which was established in 1948, is as relevant and impactful as ever.

Owens Corning is committed — in both belief and action — to the 10 principles of the Global Compact and the 30 articles of the Universal Declaration of Human Rights. This commitment extends beyond making our products and operations more sustainable. It involves the broader objectives of sustainability, balancing economic growth with social progress, and environmental stewardship. In short we believe that what is good for people and good for our planet is also good for Owens Corning. Our Human Rights Policy was updated and expanded in December 2016 and informs our Supplier Code of Conduct, all in accordance with the principles of the UNGC and the Universal Declaration of Human Rights.
REPORTING METHODOLOGY

Owens Corning follows the World Resources Institute (WRI) Corporate Accounting and Reporting standard for defining and accounting our baseline structure. In 2022, we had over 100 facilities, which are included in the scope and boundary of our reporting. The data for divested facilities are excluded from our company environmental footprint; however, the data for closures are included in our reporting.

We review all structural changes such as mergers, acquisitions, and divestments on an annual basis, in keeping with WRI’s guideline for baseline adjustments. Per the stated protocol, the data of mergers or acquisitions greater than 10% are reviewed for accuracy and integrity and then integrated into our reporting inventory from base year to current year. This process of updating the baseline is completed for both the numerator (aspect) and denominator (sales or production) of our calculations. This approach was implemented to ensure a meaningful and consistent comparison of emissions over time, including for the current year.

Please note that the numbers have been rounded. Some totals have been affected as a result.

Defining Workers

For purposes of this report, Owens Corning defines “workers” as our employees globally across all facilities in which we operate. In the Living Safely chapter, we also report on contractors over whom we have direct supervision, as well as those for our large capital projects.

Environmental Methodology

For the organizational and geographical boundaries of the inventory, we have used owned, and leased facilities globally under Owens Corning’s operational control. The physical infrastructure, activities, and/or technologies of the inventory are understood as:

- Offices
- Distribution centers
- Warehouses
- Manufacturing facilities
- Fleet vehicles
- Corporate jet
- Employee travel

Emissions resulting from explosives, fire extinguishers, refrigerants, and welding gases have been excluded as de minimis.

The greenhouse gas (GHG) sources identified are purchased electricity, heat, steam, cooling, natural gas, diesel, jet fuel, gasoline, propane, CO₂, coke, fuel oils, kerosene, LPG, blowing agents, and emissions from the processing of asphalt, dolomite, limestone, and soda ash.

All GHGs declared in the Kyoto Protocol (CO₂, CH₄, N₂O, HFCs, PFCs, NF₆) are included in the evaluation. Hydrochlorofluorocarbon (HCFC) and hydrofluoroolefin (HFO) emissions are optionally included in Scope 1 emissions, in addition to the Kyoto gases, and are outlined on page 284.

Verification of Data

Invoices are entered electronically into our system and subjected to several audits to check both the completeness and the validity of the data. Before data is made available in our EcoStruxure™ Resource Advisor system from Schneider Electric, invoices are reviewed for missing data, potential overlaps, or collisions with existing data, and whether the data should be tracked by a third party. Once posted, the invoice data is reviewed in the context of the surrounding account to verify data entry, charge accuracy, and the overall trend in cost and consumption. Invoices with suspect data are elevated for further review and resolution, also by the third party. Where necessary, detailed estimates may be used when invoiced or directly measured data is not available. These estimates leverage existing data such as monthly production levels, and are subject to the same checks for validity and completeness as all of our data.

Data that is put into our system goes through two variance tests. The first is to check if the currently entered value is >2 standard deviations over the average value entered (the period for the average is 12 months prior to the current month and 12 months after the current month). The second variance test is to check if the unit of measure is consistently used month over month.

In addition to the measures associated with invoice- and user-provided data, our third-party partner provides 24 hours per month of support for data management and quality assurance of global data. The purpose of this ongoing quality assurance/quality control is to identify anomalies when reviewing long-term trending and analyses in a further effort to ensure data accuracy and integrity.

These boundaries are applicable to all GRI Standards topics, including:

- General disclosures
- Management approach
- Economic
- Environmental
- Social
EXTERNAL ASSURANCE

To enhance the reliability of our recorded data, Owens Corning works to ensure transparency in disclosure on all matrices, key performance indicators (KPIs), and mechanisms of assurance. As we move forward, we will externally assure additional topics, prioritizing based on availability of data and importance to stakeholders, as observed through our materiality assessment. SCS performed the assurance of the Owens Corning’s 2022 Sustainability Report against the AA1000 Assurance Standard (AA1000AS V3). In addition, SCS evaluated the report for adherence to the Global Reporting Initiative’s (GRI) Standards. Specific performance data were assessed using internationally recognized standards, which included, but are not limited to, the following:

- World Resources Institute’s (WRI) Greenhouse Gas Protocol: A Corporate Accounting and Reporting Standard (Revised Edition), March 2004, along with Scope 2 and Scope 3 Guidance
- ISO 14064-3:2006 Specification with guidance for the validation and verification of GHG assertions

To view the assurance statement, please see Appendix F.

For additional information on the economic and social metrics verified through SCS Global Services, see our Verification Statements document.

Questions About the Report?

Any questions regarding our reporting process or this report can be directed to our chief sustainability officer:

Mr. David Rabuano
Senior Vice President and Chief Sustainability Officer

Phone: 1.419.248.8000
Email: sustainability@owenscorning.com
WORKFORCE DATA
EMPLOYEE DATA

The social data in this appendix marked with a * sign were independently assured to a moderate level by SCS Global Services. For more information or to see the verification statement, please go to page 311.

2022 Global Workforce Composition (Gender and Age)*

<table>
<thead>
<tr>
<th>AGE GROUPS</th>
<th>POSITION</th>
<th>WOMEN</th>
<th>MEN</th>
<th>TOTAL</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of employees in the age</td>
<td>Manager</td>
<td>37</td>
<td>69</td>
<td>106</td>
</tr>
<tr>
<td>group &lt;30 years by gender</td>
<td>Primary</td>
<td>435</td>
<td>2,963</td>
<td>3,398</td>
</tr>
<tr>
<td>within employee categories</td>
<td>Staff</td>
<td>287</td>
<td>347</td>
<td>634</td>
</tr>
<tr>
<td>TOTAL &lt;30 AGE GROUP</td>
<td></td>
<td>759</td>
<td>3,379</td>
<td>4,138</td>
</tr>
<tr>
<td>Number of employees in the age</td>
<td>Manager</td>
<td>329</td>
<td>812</td>
<td>1,141</td>
</tr>
<tr>
<td>group 30-50 years by gender</td>
<td>Senior executive/vice president</td>
<td>10</td>
<td>24</td>
<td>34</td>
</tr>
<tr>
<td>within employee categories</td>
<td>Primary</td>
<td>992</td>
<td>5,755</td>
<td>6,747</td>
</tr>
<tr>
<td></td>
<td>Staff</td>
<td>824</td>
<td>1,329</td>
<td>2,153</td>
</tr>
<tr>
<td>TOTAL 31-50 AGE GROUP</td>
<td></td>
<td>2,155</td>
<td>7,920</td>
<td>10,075</td>
</tr>
<tr>
<td>Number of employees in the age</td>
<td>Manager</td>
<td>109</td>
<td>445</td>
<td>554</td>
</tr>
<tr>
<td>group &gt;50 years by gender</td>
<td>Senior executive/vice president</td>
<td>7</td>
<td>19</td>
<td>26</td>
</tr>
<tr>
<td>within employee categories</td>
<td>Primary</td>
<td>349</td>
<td>2,732</td>
<td>3,081</td>
</tr>
<tr>
<td></td>
<td>Staff</td>
<td>367</td>
<td>757</td>
<td>1,124</td>
</tr>
<tr>
<td>TOTAL &gt;50 AGE GROUP</td>
<td></td>
<td>832</td>
<td>3,953</td>
<td>4,785</td>
</tr>
<tr>
<td>GRAND TOTAL</td>
<td></td>
<td>3,746</td>
<td>15,252</td>
<td>18,998</td>
</tr>
</tbody>
</table>

2022 U.S. Workforce Composition (People of Color)*

<table>
<thead>
<tr>
<th>POSITION</th>
<th>WOMEN</th>
<th>MEN</th>
<th>TOTAL</th>
</tr>
</thead>
<tbody>
<tr>
<td>Manager</td>
<td>52</td>
<td>118</td>
<td>170</td>
</tr>
<tr>
<td>Senior executive/vice president</td>
<td>1</td>
<td>7</td>
<td>8</td>
</tr>
<tr>
<td>Primary</td>
<td>371</td>
<td>2,042</td>
<td>2,413</td>
</tr>
<tr>
<td>Staff</td>
<td>136</td>
<td>268</td>
<td>404</td>
</tr>
<tr>
<td>TOTAL</td>
<td>560</td>
<td>2,435</td>
<td>2,995</td>
</tr>
</tbody>
</table>

2022 Percentage of People of Color at U.S. Sites*

<table>
<thead>
<tr>
<th></th>
<th>2019</th>
<th>2020</th>
<th>2021</th>
<th>2022</th>
</tr>
</thead>
<tbody>
<tr>
<td>Workforce</td>
<td>32%</td>
<td>33%</td>
<td>35%</td>
<td>35%</td>
</tr>
<tr>
<td>Management</td>
<td>14%</td>
<td>16%</td>
<td>17%</td>
<td>18%</td>
</tr>
</tbody>
</table>

Percentage of 2022 U.S. Hires (Staff and Primary) Who Identify as People of Color

<table>
<thead>
<tr>
<th></th>
<th>2019</th>
<th>2020</th>
<th>2021</th>
<th>2022</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hires Who Identify as People of Color</td>
<td>516</td>
<td>435</td>
<td>1,141</td>
<td>1,254</td>
</tr>
<tr>
<td>All Hires</td>
<td>1,130</td>
<td>933</td>
<td>2,255</td>
<td>2,646</td>
</tr>
<tr>
<td>% People of Color</td>
<td>46%</td>
<td>47%</td>
<td>51%</td>
<td>47%</td>
</tr>
</tbody>
</table>

Please note that the numbers have been rounded. Some totals have been affected as a result.
2022 Ethnic Background of Non-Contingent U.S. Employees*

<table>
<thead>
<tr>
<th>ETHNIC BACKGROUND</th>
<th>WOMEN</th>
<th>MEN</th>
<th>TOTAL</th>
<th>SHARE IN TOTAL WORKFORCE</th>
</tr>
</thead>
<tbody>
<tr>
<td>White</td>
<td>1,253</td>
<td>4,210</td>
<td>5,463</td>
<td>64.5%</td>
</tr>
<tr>
<td>Black</td>
<td>317</td>
<td>1,138</td>
<td>1,455</td>
<td>17.2%</td>
</tr>
<tr>
<td>Hispanic</td>
<td>160</td>
<td>1,033</td>
<td>1,193</td>
<td>14.1%</td>
</tr>
<tr>
<td>Asian</td>
<td>48</td>
<td>146</td>
<td>194</td>
<td>2.3%</td>
</tr>
<tr>
<td>American Indian/Alaskan</td>
<td>9</td>
<td>30</td>
<td>39</td>
<td>0.5%</td>
</tr>
<tr>
<td>Native Hawaiian/Other Pacific Islander</td>
<td>3</td>
<td>15</td>
<td>18</td>
<td>0.2%</td>
</tr>
<tr>
<td>Two or More Races</td>
<td>23</td>
<td>73</td>
<td>96</td>
<td>1.1%</td>
</tr>
<tr>
<td>Not Specified</td>
<td>2</td>
<td>13</td>
<td>15</td>
<td>0.2%</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td>1,815</td>
<td>6,658</td>
<td>8,473</td>
<td>100.0%</td>
</tr>
</tbody>
</table>

2022 U.S. Management Positions Share by Ethnic Background*

<table>
<thead>
<tr>
<th>BREAKDOWN</th>
<th>2021</th>
<th>2022</th>
<th>YOY CHANGE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Asian</td>
<td>3.7%</td>
<td>4.5%</td>
<td>0.8%</td>
</tr>
<tr>
<td>Black or African American</td>
<td>7.1%</td>
<td>6.7%</td>
<td>-0.4%</td>
</tr>
<tr>
<td>Hispanic or Latino</td>
<td>5.2%</td>
<td>5.8%</td>
<td>0.6%</td>
</tr>
<tr>
<td>White</td>
<td>83.1%</td>
<td>81.5%</td>
<td>-1.6%</td>
</tr>
<tr>
<td>Indigenous or Native</td>
<td>0.3%</td>
<td>0.4%</td>
<td>0.1%</td>
</tr>
<tr>
<td>Native Hawaiian/Other Pacific Islander</td>
<td>0.0%</td>
<td>0.1%</td>
<td>0.1%</td>
</tr>
<tr>
<td>Two or More Races</td>
<td>0.6%</td>
<td>0.9%</td>
<td>0.3%</td>
</tr>
<tr>
<td>Not Specified</td>
<td>0.0%</td>
<td>0.0%</td>
<td>0.0%</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td>100.0%</td>
<td>100.0%</td>
<td>0.0%</td>
</tr>
</tbody>
</table>

Number of Global Employees by Employment Contract (by Gender and Region)*

<table>
<thead>
<tr>
<th>REGION</th>
<th>WOMEN</th>
<th>MEN</th>
<th>TOTAL</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>REGULAR</td>
<td>TEMPORARY</td>
<td>REGULAR</td>
</tr>
<tr>
<td>Asia Pacific</td>
<td>691</td>
<td>0</td>
<td>3,051</td>
</tr>
<tr>
<td>Europe</td>
<td>644</td>
<td>11</td>
<td>3,267</td>
</tr>
<tr>
<td>Latin America</td>
<td>481</td>
<td>0</td>
<td>1,795</td>
</tr>
<tr>
<td>North America</td>
<td>1,919</td>
<td>0</td>
<td>7,130</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td>3,735</td>
<td>11</td>
<td>15,243</td>
</tr>
</tbody>
</table>

Please note that the numbers have been rounded. Some totals have been affected as a result.
Number of Global Employees by Employment Type (by Gender)*

<table>
<thead>
<tr>
<th></th>
<th>WOMEN</th>
<th>MEN</th>
<th>TOTAL</th>
</tr>
</thead>
<tbody>
<tr>
<td>Full Time</td>
<td>3,688</td>
<td>15,198</td>
<td>18,886</td>
</tr>
<tr>
<td>Part Time</td>
<td>58</td>
<td>54</td>
<td>112</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td>3,746</td>
<td>15,252</td>
<td>18,998</td>
</tr>
</tbody>
</table>

Employee Training by Gender*

<table>
<thead>
<tr>
<th>CATEGORY</th>
<th>HOURS SUM</th>
<th>COUNT</th>
<th>HOURS AVERAGE</th>
<th>TOTALS</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>WOMEN</td>
<td>MEN</td>
<td>WOMEN</td>
<td>MEN</td>
</tr>
<tr>
<td>Senior Executive/Vice President</td>
<td>45</td>
<td>108</td>
<td>17</td>
<td>43</td>
</tr>
<tr>
<td>Manager</td>
<td>5,193</td>
<td>15,339</td>
<td>468</td>
<td>1,308</td>
</tr>
<tr>
<td>Staff</td>
<td>13,035</td>
<td>19,949</td>
<td>1,433</td>
<td>2,369</td>
</tr>
<tr>
<td>Primary</td>
<td>17,883</td>
<td>75,951</td>
<td>783</td>
<td>4,469</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td>36,156</td>
<td>111,347</td>
<td>2,701</td>
<td>8,189</td>
</tr>
</tbody>
</table>

2022

Average amount in USD spent per FTE on training and development* $482

North American Staff Who Took Parental Leave in 2022

<table>
<thead>
<tr>
<th></th>
<th>WOMEN</th>
<th>MEN</th>
<th>TOTAL</th>
</tr>
</thead>
<tbody>
<tr>
<td>U.S.</td>
<td>36</td>
<td>36</td>
<td>72</td>
</tr>
<tr>
<td>Canada</td>
<td>11</td>
<td>2</td>
<td>13</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td>47</td>
<td>38</td>
<td>85</td>
</tr>
</tbody>
</table>

Please note that the numbers have been rounded. Some totals have been affected as a result.
## 2022 Global Workforce Composition (Gender and Country)*

<table>
<thead>
<tr>
<th>COUNTRY</th>
<th>WOMEN</th>
<th>MEN</th>
<th>TOTAL</th>
</tr>
</thead>
<tbody>
<tr>
<td>Austria</td>
<td>1</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>Belgium</td>
<td>83</td>
<td>415</td>
<td>498</td>
</tr>
<tr>
<td>Brazil</td>
<td>66</td>
<td>549</td>
<td>615</td>
</tr>
<tr>
<td>Canada</td>
<td>104</td>
<td>477</td>
<td>581</td>
</tr>
<tr>
<td>Chile</td>
<td>13</td>
<td>30</td>
<td>43</td>
</tr>
<tr>
<td>China</td>
<td>503</td>
<td>1,086</td>
<td>1,589</td>
</tr>
<tr>
<td>Czech Republic</td>
<td>62</td>
<td>241</td>
<td>303</td>
</tr>
<tr>
<td>Denmark</td>
<td>2</td>
<td>6</td>
<td>8</td>
</tr>
<tr>
<td>Estonia</td>
<td>2</td>
<td>5</td>
<td>7</td>
</tr>
<tr>
<td>Finland</td>
<td>53</td>
<td>194</td>
<td>247</td>
</tr>
<tr>
<td>France</td>
<td>97</td>
<td>390</td>
<td>487</td>
</tr>
<tr>
<td>Germany</td>
<td>38</td>
<td>131</td>
<td>169</td>
</tr>
<tr>
<td>Hong Kong</td>
<td>1</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>India</td>
<td>157</td>
<td>1,637</td>
<td>1,794</td>
</tr>
<tr>
<td>Italy</td>
<td>23</td>
<td>304</td>
<td>327</td>
</tr>
<tr>
<td>Japan</td>
<td>5</td>
<td>15</td>
<td>20</td>
</tr>
<tr>
<td>South Korea</td>
<td>16</td>
<td>273</td>
<td>289</td>
</tr>
<tr>
<td>Latvia</td>
<td>2</td>
<td>7</td>
<td>9</td>
</tr>
<tr>
<td>Lithuania</td>
<td>49</td>
<td>209</td>
<td>258</td>
</tr>
<tr>
<td>Mexico</td>
<td>402</td>
<td>1,216</td>
<td>1,618</td>
</tr>
<tr>
<td>Netherlands</td>
<td>14</td>
<td>155</td>
<td>169</td>
</tr>
<tr>
<td>Norway</td>
<td>-</td>
<td>7</td>
<td>7</td>
</tr>
<tr>
<td>Poland</td>
<td>104</td>
<td>683</td>
<td>787</td>
</tr>
<tr>
<td>Singapore</td>
<td>9</td>
<td>39</td>
<td>48</td>
</tr>
<tr>
<td>Slovakia</td>
<td>-</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Spain</td>
<td>33</td>
<td>51</td>
<td>84</td>
</tr>
<tr>
<td>Sweden</td>
<td>73</td>
<td>356</td>
<td>429</td>
</tr>
<tr>
<td>Switzerland</td>
<td>4</td>
<td>12</td>
<td>16</td>
</tr>
<tr>
<td>United Arab Emirates</td>
<td>-</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>United Kingdom</td>
<td>15</td>
<td>100</td>
<td>115</td>
</tr>
<tr>
<td>United States</td>
<td>1,815</td>
<td>6,658</td>
<td>8,473</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td><strong>3,746</strong></td>
<td><strong>15,252</strong></td>
<td><strong>18,998</strong></td>
</tr>
</tbody>
</table>

*Please note that the numbers have been rounded. Some totals have been affected as a result.*
## WORKFORCE DATA

### EMPLOYEE DATA

**APPENDIX B**

### OVERVIEW OPERATIONALIZING SUSTAINABILITY

### BUILDING A CIRCULAR ECONOMY MODEL

### LEADING THROUGHOUT THE WORLD

### INNOVATING FOR DECARBONIZATION & SUSTAINABILITY

### REINFORCING OUR FOUNDATION

### LIVING OUR VALUES

## WORKFORCE DATA

### EMPLOYEE DATA Appendix B

### OVERVIEW OPERATIONALIZING SUSTAINABILITY

### BUILDING A CIRCULAR ECONOMY MODEL

### LEADING THROUGHOUT THE WORLD

### INNOVATING FOR DECARBONIZATION & SUSTAINABILITY

### REINFORCING OUR FOUNDATION

### LIVING OUR VALUES

## WORKFORCE DATA

### EMPLOYEE DATA

Number of Employees Joining the Organization in 2022**

<table>
<thead>
<tr>
<th></th>
<th>2019</th>
<th>2020</th>
<th>2021</th>
<th>2022</th>
<th>2022 RATE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Employees</td>
<td>2,563</td>
<td>2,436</td>
<td>4,274</td>
<td>4,205</td>
<td>22%</td>
</tr>
</tbody>
</table>

**BY AGE GROUP**

<table>
<thead>
<tr>
<th></th>
<th>&lt;30 Years</th>
<th>30 to 50 Years</th>
<th>&gt;50 Years</th>
</tr>
</thead>
<tbody>
<tr>
<td>2019</td>
<td>1,248</td>
<td>1,123</td>
<td>192</td>
</tr>
<tr>
<td>2020</td>
<td>1,174</td>
<td>1,095</td>
<td>167</td>
</tr>
<tr>
<td>2021</td>
<td>2,217</td>
<td>1,756</td>
<td>301</td>
</tr>
<tr>
<td>2022</td>
<td>1,870</td>
<td>1,940</td>
<td>395</td>
</tr>
<tr>
<td>2022 RATE</td>
<td>52%</td>
<td>18%</td>
<td>8%</td>
</tr>
</tbody>
</table>

**BY GENDER**

<table>
<thead>
<tr>
<th></th>
<th>Men</th>
<th>Women</th>
</tr>
</thead>
<tbody>
<tr>
<td>2019</td>
<td>2,010</td>
<td>553</td>
</tr>
<tr>
<td>2020</td>
<td>1,927</td>
<td>509</td>
</tr>
<tr>
<td>2021</td>
<td>3,447</td>
<td>827</td>
</tr>
<tr>
<td>2022</td>
<td>3,200</td>
<td>1,005</td>
</tr>
<tr>
<td>2022 RATE</td>
<td>21%</td>
<td>27%</td>
</tr>
</tbody>
</table>

**BY REGION**

<table>
<thead>
<tr>
<th></th>
<th>Asia Pacific</th>
<th>Europe</th>
<th>Latin America</th>
<th>North America</th>
</tr>
</thead>
<tbody>
<tr>
<td>2019</td>
<td>502</td>
<td>458</td>
<td>438</td>
<td>1,165</td>
</tr>
<tr>
<td>2020</td>
<td>758</td>
<td>319</td>
<td>391</td>
<td>968</td>
</tr>
<tr>
<td>2021</td>
<td>957</td>
<td>477</td>
<td>649</td>
<td>2,191</td>
</tr>
<tr>
<td>2022</td>
<td>400</td>
<td>469</td>
<td>747</td>
<td>2,589</td>
</tr>
<tr>
<td>2022 RATE</td>
<td>11%</td>
<td>12%</td>
<td>33%</td>
<td>29%</td>
</tr>
</tbody>
</table>

**OTHER METRICS**

<table>
<thead>
<tr>
<th></th>
<th>% of Open Positions Filled by Internal Candidates</th>
<th>Average Hiring Cost/FTE in USD</th>
</tr>
</thead>
<tbody>
<tr>
<td>2019</td>
<td>46</td>
<td>4,963</td>
</tr>
<tr>
<td>2020</td>
<td>39</td>
<td>5,079</td>
</tr>
<tr>
<td>2021</td>
<td>28</td>
<td>4,800</td>
</tr>
<tr>
<td>2022</td>
<td>29</td>
<td>5,500</td>
</tr>
<tr>
<td>2022 RATE</td>
<td>-</td>
<td>-</td>
</tr>
</tbody>
</table>

*Average Hiring Cost/FTE does not include hiring costs of directors or above in the organization.

Number of Employees Leaving Employment in 2022*

<table>
<thead>
<tr>
<th></th>
<th>2019</th>
<th>2020</th>
<th>2021</th>
<th>2022</th>
<th>2022 RATE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Employees</td>
<td>3,298</td>
<td>2,908</td>
<td>3,879</td>
<td>5,179</td>
<td>26%</td>
</tr>
</tbody>
</table>

**BY AGE GROUP**

<table>
<thead>
<tr>
<th></th>
<th>&lt;30 Years</th>
<th>30 to 50 Years</th>
<th>&gt;50 Years</th>
</tr>
</thead>
<tbody>
<tr>
<td>2019</td>
<td>1,039</td>
<td>1,568</td>
<td>691</td>
</tr>
<tr>
<td>2020</td>
<td>812</td>
<td>1,417</td>
<td>679</td>
</tr>
<tr>
<td>2021</td>
<td>1,509</td>
<td>1,650</td>
<td>720</td>
</tr>
<tr>
<td>2022</td>
<td>1,669</td>
<td>2,581</td>
<td>929</td>
</tr>
<tr>
<td>2022 RATE</td>
<td>44%</td>
<td>23%</td>
<td>19%</td>
</tr>
</tbody>
</table>

**BY GENDER**

<table>
<thead>
<tr>
<th></th>
<th>Men</th>
<th>Women</th>
</tr>
</thead>
<tbody>
<tr>
<td>2019</td>
<td>2,623</td>
<td>675</td>
</tr>
<tr>
<td>2020</td>
<td>2,298</td>
<td>610</td>
</tr>
<tr>
<td>2021</td>
<td>3,131</td>
<td>748</td>
</tr>
<tr>
<td>2022</td>
<td>4,044</td>
<td>1,135</td>
</tr>
<tr>
<td>2022 RATE</td>
<td>25%</td>
<td>29%</td>
</tr>
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</table>

**BY REGION**

<table>
<thead>
<tr>
<th></th>
<th>Asia Pacific</th>
<th>Europe</th>
<th>Latin America</th>
<th>North America</th>
</tr>
</thead>
<tbody>
<tr>
<td>2019</td>
<td>806</td>
<td>499</td>
<td>572</td>
<td>1,421</td>
</tr>
<tr>
<td>2020</td>
<td>636</td>
<td>405</td>
<td>480</td>
<td>1,387</td>
</tr>
<tr>
<td>2021</td>
<td>908</td>
<td>453</td>
<td>475</td>
<td>2,043</td>
</tr>
<tr>
<td>2022</td>
<td>832</td>
<td>1,121</td>
<td>709</td>
<td>2,517</td>
</tr>
<tr>
<td>2022 RATE</td>
<td>21%</td>
<td>25%</td>
<td>31%</td>
<td>28%</td>
</tr>
</tbody>
</table>

Total Employee Turnover Rate*

<table>
<thead>
<tr>
<th></th>
<th>2019</th>
<th>2020</th>
<th>2021</th>
<th>2022</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Employee Turnover Rate</td>
<td>17%</td>
<td>16%</td>
<td>20%</td>
<td>26%</td>
</tr>
<tr>
<td>Voluntary Employee Turnover Rate</td>
<td>11%</td>
<td>10%</td>
<td>13%</td>
<td>14%</td>
</tr>
</tbody>
</table>

*Please note that the numbers have been rounded. Some totals have been affected as a result.
### Occupational Illness Frequency Rate (OIFR) - Employees*

<table>
<thead>
<tr>
<th>DEPARTMENT NAME</th>
<th>METRIC</th>
<th>2019</th>
<th>2020</th>
<th>2021</th>
<th>2022</th>
</tr>
</thead>
<tbody>
<tr>
<td>Occupational Illness</td>
<td>Total Labor Hours</td>
<td>45,900,250</td>
<td>42,294,427</td>
<td>45,526,354</td>
<td>44,639,924</td>
</tr>
<tr>
<td></td>
<td>Count</td>
<td>0</td>
<td>2</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>Rate</td>
<td>0.00</td>
<td>0.05</td>
<td>0.02</td>
<td>0.02</td>
</tr>
</tbody>
</table>

### Occupational Illness By Region*

<table>
<thead>
<tr>
<th>REGION</th>
<th>METRIC</th>
<th>2019</th>
<th>2020</th>
<th>2021</th>
<th>2022</th>
</tr>
</thead>
<tbody>
<tr>
<td>North America</td>
<td>Total Labor Hours</td>
<td>45,900,250</td>
<td>42,294,427</td>
<td>45,526,354</td>
<td>44,639,924</td>
</tr>
<tr>
<td></td>
<td>Women (count)</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td></td>
<td>Women (rate)</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
</tr>
<tr>
<td></td>
<td>Men (count)</td>
<td>0</td>
<td>2</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>Men (rate)</td>
<td>0.00</td>
<td>0.01</td>
<td>0.004</td>
<td>0.004</td>
</tr>
</tbody>
</table>

There were no occupational illnesses in South America, Europe, or Asia Pacific in the last four years.

Please note that the numbers have been rounded. Some totals have been affected as a result.
## Workforce Data

### Safety Data

**Appendix B**

### Recordable Injuries*

<table>
<thead>
<tr>
<th>REGION</th>
<th>METRIC</th>
<th>2019</th>
<th>2020</th>
<th>2021</th>
<th>2022</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Total Labor Hours</td>
<td>13,089,577</td>
<td>12,297,391</td>
<td>13,669,192</td>
<td>12,161,767</td>
</tr>
<tr>
<td>Asia Pacific</td>
<td>Women (count)</td>
<td>0</td>
<td>0</td>
<td>3</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>Women (rate)</td>
<td>0.00</td>
<td>0.00</td>
<td>0.04</td>
<td>0.02</td>
</tr>
<tr>
<td></td>
<td>Men (count)</td>
<td>5</td>
<td>8</td>
<td>8</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Men (rate)</td>
<td>0.08</td>
<td>0.13</td>
<td>0.12</td>
<td>0.05</td>
</tr>
<tr>
<td></td>
<td>Not Specified (count)</td>
<td>4</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>Not Specified (rate)</td>
<td>0.06</td>
<td>0.03</td>
<td>0.04</td>
<td>0.07</td>
</tr>
<tr>
<td></td>
<td>Asia Pacific Total (count)</td>
<td>9</td>
<td>10</td>
<td>14</td>
<td>8</td>
</tr>
<tr>
<td></td>
<td>ASIA PACIFIC RIR</td>
<td><strong>0.14</strong></td>
<td><strong>0.16</strong></td>
<td><strong>0.20</strong></td>
<td><strong>0.13</strong></td>
</tr>
<tr>
<td>Europe</td>
<td>Total Labor Hours</td>
<td>8,575,120</td>
<td>8,073,712</td>
<td>8,440,486</td>
<td>8,150,736</td>
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<tr>
<td></td>
<td>Women (count)</td>
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<td>0</td>
<td>0</td>
<td>1</td>
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<tr>
<td></td>
<td>Women (rate)</td>
<td>0.02</td>
<td>0.00</td>
<td>0.00</td>
<td>0.02</td>
</tr>
<tr>
<td></td>
<td>Men (count)</td>
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<td>7</td>
<td>8</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Men (rate)</td>
<td>0.30</td>
<td>0.17</td>
<td>0.19</td>
<td>0.07</td>
</tr>
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<td>Not Specified (count)</td>
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<td>9</td>
<td>10</td>
<td>6</td>
</tr>
<tr>
<td></td>
<td>Not Specified (rate)</td>
<td>0.14</td>
<td>0.22</td>
<td>0.24</td>
<td>0.15</td>
</tr>
<tr>
<td></td>
<td>Europe Total (count)</td>
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<td>16</td>
<td>18</td>
<td>10</td>
</tr>
<tr>
<td></td>
<td>EUROPE RIR</td>
<td><strong>0.47</strong></td>
<td><strong>0.40</strong></td>
<td><strong>0.43</strong></td>
<td><strong>0.25</strong></td>
</tr>
<tr>
<td>North America</td>
<td>Total Labor Hours</td>
<td>22,925,718</td>
<td>20,772,298</td>
<td>22,296,903</td>
<td>22,982,359</td>
</tr>
<tr>
<td></td>
<td>Women (count)</td>
<td>17</td>
<td>13</td>
<td>20</td>
<td>16</td>
</tr>
<tr>
<td></td>
<td>Women (rate)</td>
<td>0.15</td>
<td>0.13</td>
<td>0.18</td>
<td>0.14</td>
</tr>
<tr>
<td></td>
<td>Men (count)</td>
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<td>93</td>
<td>90</td>
<td>108</td>
</tr>
<tr>
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<td>0.90</td>
<td>0.81</td>
<td>0.94</td>
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<td>1</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>Not Specified (rate)</td>
<td>0.03</td>
<td>0.02</td>
<td>0.01</td>
<td>0.02</td>
</tr>
<tr>
<td></td>
<td>North America Total (count)</td>
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<td>108</td>
<td>111</td>
<td>126</td>
</tr>
<tr>
<td></td>
<td>NORTH AMERICA RIR</td>
<td><strong>1.06</strong></td>
<td><strong>1.04</strong></td>
<td><strong>1.00</strong></td>
<td><strong>1.10</strong></td>
</tr>
<tr>
<td>South America</td>
<td>Total Labor Hours</td>
<td>1,309,836</td>
<td>1,151,026</td>
<td>1,119,773</td>
<td>1,345,062</td>
</tr>
<tr>
<td></td>
<td>Women (count)</td>
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<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td></td>
<td>Women (rate)</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
</tr>
<tr>
<td></td>
<td>Men (count)</td>
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<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td></td>
<td>Men (rate)</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
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<tr>
<td></td>
<td>South America Total (count)</td>
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<td>0</td>
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<tr>
<td></td>
<td>SOUTH AMERICA RIR</td>
<td><strong>0.00</strong></td>
<td><strong>0.00</strong></td>
<td><strong>0.00</strong></td>
<td><strong>0.00</strong></td>
</tr>
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<td><strong>GRAND TOTAL RECORDABLE INJURIES</strong></td>
<td></td>
<td><strong>151</strong></td>
<td><strong>134</strong></td>
<td><strong>143</strong></td>
<td><strong>144</strong></td>
</tr>
<tr>
<td><strong>RECORDABLE INCIDENT RATE (RIR)</strong></td>
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<td><strong>0.63</strong></td>
<td><strong>0.63</strong></td>
<td><strong>0.65</strong></td>
</tr>
<tr>
<td><strong>TOTAL RECORDABLE INJURIES FREQUENCY RATE (TRIFR)</strong></td>
<td></td>
<td><strong>3.29</strong></td>
<td><strong>3.17</strong></td>
<td><strong>3.14</strong></td>
<td><strong>3.23</strong></td>
</tr>
</tbody>
</table>

Please note that the numbers have been rounded. Some totals have been affected as a result.
## Appendix B – Safety Data

### Region/Gender/Injury Type

<table>
<thead>
<tr>
<th>Region</th>
<th>2019</th>
<th>2020</th>
<th>2021</th>
<th>2022</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Asia Pacific</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Women</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Arms/Hands</td>
<td>1</td>
<td>0</td>
<td>3</td>
<td>1</td>
</tr>
<tr>
<td>Legs/Feet</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>1</td>
<td>0</td>
<td>4</td>
<td>1</td>
</tr>
<tr>
<td><strong>Men</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Arms/Hands</td>
<td>3</td>
<td>6</td>
<td>8</td>
<td>5</td>
</tr>
<tr>
<td>Back/Shoulders</td>
<td>0</td>
<td>1</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Head/Face/Eyes</td>
<td>0</td>
<td>1</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>Legs/Feet</td>
<td>3</td>
<td>2</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>6</td>
<td>10</td>
<td>10</td>
<td>7</td>
</tr>
<tr>
<td><strong>Unspecified</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Arms/Hands</td>
<td>2</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>2</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td><strong>Asia Pacific Total</strong></td>
<td>9</td>
<td>10</td>
<td>14</td>
<td>8</td>
</tr>
</tbody>
</table>

| **Europe** |      |      |      |      |
| **Women**  |      |      |      |      |
| Arms/Hands | 1    | 0    | 0    | 1    |
| Back/Shoulders | 1    | 0    | 0    | 0    |
| **Total**  | 2    | 0    | 0    | 1    |
| **Men**    |      |      |      |      |
| Arms/Hands | 10   | 8    | 10   | 5    |
| Back/Shoulders | 1    | 0    | 0    | 1    |
| Head/Face/Eyes | 2    | 2    | 2    | 2    |
| Legs/Feet  | 5    | 3    | 3    | 0    |
| **Total**  | 18   | 13   | 15   | 8    |
| **Unspecified** |      |      |      |      |
| Arms/Hands | 0    | 3    | 2    | 0    |
| Head/Face/Eyes | 0    | 0    | 1    | 1    |
| **Total**  | 0    | 3    | 3    | 1    |
| **Europe Total** | 20 | 16 | 18 | 10 |

Please note that the numbers have been rounded. Some totals have been affected as a result.
# Workforce Data

## Safety Data

### Employee Lost-Time Injury Frequency Rate (LTIFR)*

<table>
<thead>
<tr>
<th>REGION</th>
<th>METRIC</th>
<th>2019</th>
<th>2020</th>
<th>2021</th>
<th>2022</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Total Labor</td>
<td>Hours</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Asia Pacific</td>
<td>Women (count)</td>
<td>0</td>
<td>0</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>Women (rate)</td>
<td>0.00</td>
<td>0.00</td>
<td>0.03</td>
<td>0.02</td>
</tr>
<tr>
<td></td>
<td>Men (count)</td>
<td>3</td>
<td>6</td>
<td>5</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>Men (rate)</td>
<td>0.05</td>
<td>0.10</td>
<td>0.07</td>
<td>0.03</td>
</tr>
<tr>
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<td>1</td>
<td>2</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>Not Specified (rate)</td>
<td>0.02</td>
<td>0.02</td>
<td>0.03</td>
<td>0.07</td>
</tr>
<tr>
<td>Asia Pacific Total (count)</td>
<td>4</td>
<td>7</td>
<td>9</td>
<td>7</td>
<td></td>
</tr>
<tr>
<td>ASIA PACIFIC LWIR</td>
<td>0.06</td>
<td>0.11</td>
<td>0.13</td>
<td>0.12</td>
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<tr>
<td>ASIA PACIFIC LTIFR</td>
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<td>0.66</td>
<td>0.58</td>
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<tr>
<td>Europe</td>
<td>Total Labor</td>
<td>Hours</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Women (count)</td>
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<td>0</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>Women (rate)</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.02</td>
</tr>
<tr>
<td></td>
<td>Men (count)</td>
<td>11</td>
<td>5</td>
<td>6</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Men (rate)</td>
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<td>0.12</td>
<td>0.14</td>
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<td>7</td>
<td>7</td>
<td>4</td>
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<tr>
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<td>0.10</td>
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<td>EUROPE LTIFR</td>
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### Lost-Time Injuries Frequency Rate (LTIFR) - Employees

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Please note that the numbers have been rounded. Some totals have been affected as a result.
### Lost Work Day Rate (LWD)*

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<tr>
<td></td>
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<td>13,669,192</td>
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<tr>
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Please note that the numbers have been rounded. Some totals have been affected as a result.
## Contractor Safety Statistics

**Building Materials Asia Pacific**

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**Composites**

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**Insulation**

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**Roofing**

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**TOTAL**

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### Contractor Lost-Time Injury Frequency Rate (LTIFR)

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*Please note that the numbers have been rounded. Some totals have been affected as a result.*
## 2022 Serious Injuries and Fatalities (SIF)*

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<td>22,925,718</td>
<td>20,772,298</td>
<td>22,296,903</td>
<td>22,982,359</td>
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<tr>
<td></td>
<td>SIF Near Miss Count</td>
<td>25</td>
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<tr>
<td></td>
<td>SIF Near Miss Rate</td>
<td>0.22</td>
<td>0.22</td>
<td>0.13</td>
<td>0.17</td>
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<tr>
<td>South America</td>
<td>Total Labor Hours</td>
<td>1,309,836</td>
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<td>1,345,062</td>
</tr>
<tr>
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<td>0.17</td>
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<table>
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<th>METRIC</th>
<th>2019</th>
<th>2020</th>
<th>2021</th>
<th>2022</th>
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<tbody>
<tr>
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<td>Total Labor Hours</td>
<td>13,089,577</td>
<td>12,297,391</td>
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<td>0.03</td>
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<tr>
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<td></td>
<td>SIF Near Miss Rate</td>
<td>0.22</td>
<td>0.22</td>
<td>0.13</td>
<td>0.17</td>
</tr>
<tr>
<td>South America</td>
<td>Total Labor Hours</td>
<td>1,309,836</td>
<td>1,151,026</td>
<td>1,119,773</td>
<td>1,345,062</td>
</tr>
<tr>
<td></td>
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<td>1</td>
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<tr>
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<td>SIF Near Miss Rate</td>
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<td>0.17</td>
<td>0.18</td>
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Please note that the numbers have been rounded. Some totals have been affected as a result.
### Employee Fatalities*

<table>
<thead>
<tr>
<th>REGION</th>
<th>METRIC</th>
<th>2019</th>
<th>2020</th>
<th>2021</th>
<th>2022</th>
</tr>
</thead>
<tbody>
<tr>
<td>Asia Pacific</td>
<td>Total Labor Hours</td>
<td>13,089,577</td>
<td>12,297,391</td>
<td>13,430,246</td>
<td>12,161,767</td>
</tr>
<tr>
<td></td>
<td>Women Fatalities (count)</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
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<tr>
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<td>Men Fatalities (count)</td>
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<tr>
<td></td>
<td><strong>TOTAL FATALITIES</strong></td>
<td><strong>0</strong></td>
<td><strong>0</strong></td>
<td><strong>0</strong></td>
<td><strong>0</strong></td>
</tr>
<tr>
<td>Europe</td>
<td>Total Labor Hours</td>
<td>8,575,120</td>
<td>8,073,712</td>
<td>8,440,486</td>
<td>8,150,736</td>
</tr>
<tr>
<td></td>
<td>Women Fatalities (count)</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td></td>
<td>Men Fatalities (count)</td>
<td>0</td>
<td>0</td>
<td>0</td>
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<td><strong>0</strong></td>
<td><strong>0</strong></td>
<td><strong>0</strong></td>
</tr>
<tr>
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<td>22,596,142</td>
<td>22,982,359</td>
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<tr>
<td></td>
<td>Women Fatalities (count)</td>
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<td>0</td>
<td>0</td>
</tr>
<tr>
<td></td>
<td>Men Fatalities (count)</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td></td>
<td><strong>TOTAL FATALITIES</strong></td>
<td><strong>1</strong></td>
<td><strong>0</strong></td>
<td><strong>0</strong></td>
<td><strong>0</strong></td>
</tr>
<tr>
<td>South America</td>
<td>Total Labor Hours</td>
<td>1,309,836</td>
<td>1,151,026</td>
<td>1,119,773</td>
<td>1,345,062</td>
</tr>
<tr>
<td></td>
<td>Women Fatalities (count)</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td></td>
<td>Men Fatalities (count)</td>
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<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td></td>
<td><strong>TOTAL FATALITIES</strong></td>
<td><strong>0</strong></td>
<td><strong>0</strong></td>
<td><strong>0</strong></td>
<td><strong>0</strong></td>
</tr>
<tr>
<td><strong>GRAND TOTAL FATALITIES</strong></td>
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<td><strong>0</strong></td>
<td><strong>0</strong></td>
<td><strong>0</strong></td>
</tr>
</tbody>
</table>

*Please note that the numbers have been rounded. Some totals have been affected as a result.
Energy

The energy, Scope 1 and Scope 2 greenhouse gas emissions, and select Scope 3 greenhouse gas emission categories data in this appendix were independently assured to a high level by SCS Global Services. Other data were independently assured to a moderate level by SCS Global Services. For more information or to see the verification statement, please go to page 311.

For the data in this section, baseline adjustments were made following the World Resources Institute (WRI) protocols. Read more in About the Report.

### Direct Energy by Fuel Type

<table>
<thead>
<tr>
<th>Fuel Type</th>
<th>2018</th>
<th>2019</th>
<th>2020</th>
<th>2021</th>
<th>2022</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gasoline &amp; Diesel</td>
<td>25,404</td>
<td>22,065</td>
<td>17,184</td>
<td>20,146</td>
<td>19,690</td>
</tr>
<tr>
<td>Jet Fuel (Jet A or A-1)</td>
<td>12,503</td>
<td>11,197</td>
<td>4,290</td>
<td>8,970</td>
<td>10,473</td>
</tr>
<tr>
<td>Propane &amp; LPG</td>
<td>155,907</td>
<td>114,714</td>
<td>97,504</td>
<td>103,417</td>
<td>129,857</td>
</tr>
<tr>
<td>Coke</td>
<td>674,908</td>
<td>671,221</td>
<td>651,777</td>
<td>687,353</td>
<td>633,777</td>
</tr>
<tr>
<td>Fuel Oil 1,2,6</td>
<td>4,164</td>
<td>3,194</td>
<td>3,298</td>
<td>4,053</td>
<td>5,147</td>
</tr>
<tr>
<td>Liquefied Natural Gas (LNG)</td>
<td>39,982</td>
<td>32,202</td>
<td>34,088</td>
<td>34,481</td>
<td>35,213</td>
</tr>
<tr>
<td>Natural Gas</td>
<td>5,973,384</td>
<td>5,845,002</td>
<td>5,405,939</td>
<td>5,958,529</td>
<td>5,995,988</td>
</tr>
<tr>
<td>TOTAL</td>
<td>6,886,252</td>
<td>6,699,594</td>
<td>6,214,079</td>
<td>6,816,950</td>
<td>6,830,144</td>
</tr>
</tbody>
</table>

Please note that the numbers have been rounded. Some totals have been affected as a result.
**Indirect Energy by Source**

<table>
<thead>
<tr>
<th>Year</th>
<th>Electricity</th>
<th>Steam, Heat, Cooling</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>2018</td>
<td>3,411,069</td>
<td>6,272</td>
<td>3,417,340</td>
</tr>
<tr>
<td>2019</td>
<td>3,135,655</td>
<td>5,941</td>
<td>3,141,596</td>
</tr>
<tr>
<td>2020</td>
<td>3,038,271</td>
<td>6,550</td>
<td>3,044,821</td>
</tr>
<tr>
<td>2021</td>
<td>3,347,133</td>
<td>7,186</td>
<td>3,354,319</td>
</tr>
<tr>
<td>2022</td>
<td>3,363,404</td>
<td>4,804</td>
<td>3,368,208</td>
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</tbody>
</table>

**Electricity Consumption by Source** (in Megawatt Hours)

<table>
<thead>
<tr>
<th>Year</th>
<th>Renewable Sourced Electricity</th>
<th>Nonrenewable Sourced Electricity</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>2018</td>
<td>1,681,750</td>
<td>1,729,319</td>
<td>3,411,069</td>
</tr>
<tr>
<td>2019</td>
<td>1,617,921</td>
<td>1,517,735</td>
<td>3,135,655</td>
</tr>
<tr>
<td>2020</td>
<td>1,621,481</td>
<td>1,416,789</td>
<td>3,038,271</td>
</tr>
<tr>
<td>2021</td>
<td>1,748,662</td>
<td>1,598,471</td>
<td>3,347,133</td>
</tr>
<tr>
<td>2022</td>
<td>1,899,558</td>
<td>1,463,846</td>
<td>3,363,404</td>
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</table>

**Energy Efficiency Footprint**

<table>
<thead>
<tr>
<th>Year</th>
<th>Absolute MWh</th>
<th>Absolute Percentage</th>
<th>2030 Goal</th>
</tr>
</thead>
<tbody>
<tr>
<td>2018</td>
<td>10,303,592</td>
<td>100%</td>
<td>2030 Goal</td>
</tr>
<tr>
<td>2019</td>
<td>9,841,190</td>
<td>96%</td>
<td>2030 Goal</td>
</tr>
<tr>
<td>2020</td>
<td>9,258,900</td>
<td>90%</td>
<td>2030 Goal</td>
</tr>
<tr>
<td>2021</td>
<td>10,171,269</td>
<td>99%</td>
<td>2030 Goal</td>
</tr>
<tr>
<td>2022</td>
<td>10,198,352</td>
<td>99%</td>
<td>2030 Goal</td>
</tr>
</tbody>
</table>

Please note that the numbers have been rounded. Some totals have been affected as a result.
## ENERGY DATA

### Energy Portfolio (in Megawatt Hours)

#### DIRECT ENERGY

**Nonrenewable**

<table>
<thead>
<tr>
<th>Region</th>
<th>2018</th>
<th>2019</th>
<th>2020</th>
<th>2021</th>
<th>2022</th>
</tr>
</thead>
<tbody>
<tr>
<td>Asia Pacific</td>
<td>796,211</td>
<td>862,409</td>
<td>693,848</td>
<td>776,939</td>
<td>745,853</td>
</tr>
<tr>
<td>Canada</td>
<td>258,307</td>
<td>221,106</td>
<td>215,059</td>
<td>272,769</td>
<td>274,091</td>
</tr>
<tr>
<td>Europe</td>
<td>1,458,858</td>
<td>1,371,011</td>
<td>1,300,617</td>
<td>1,376,276</td>
<td>1,387,802</td>
</tr>
<tr>
<td>Latin America</td>
<td>587,359</td>
<td>539,663</td>
<td>547,142</td>
<td>578,875</td>
<td>566,638</td>
</tr>
<tr>
<td>United States</td>
<td>3,785,516</td>
<td>3,705,406</td>
<td>3,457,413</td>
<td>3,812,092</td>
<td>3,855,760</td>
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**Renewable**

<table>
<thead>
<tr>
<th>Region</th>
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<th>2019</th>
<th>2020</th>
<th>2021</th>
<th>2022</th>
</tr>
</thead>
<tbody>
<tr>
<td>Asia Pacific</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Canada</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Europe</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Latin America</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>United States</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
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#### INDIRECT ENERGY

**Nonrenewable**

<table>
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<tr>
<th>Region</th>
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<th>2020</th>
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<th>2022</th>
</tr>
</thead>
<tbody>
<tr>
<td>Asia Pacific</td>
<td>347,984</td>
<td>376,704</td>
<td>342,418</td>
<td>371,692</td>
<td>334,614</td>
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<td>Canada</td>
<td>158,663</td>
<td>116,290</td>
<td>21,352</td>
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<td>161,638</td>
<td>149,260</td>
<td>169,850</td>
<td>166,383</td>
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<tr>
<td>United States</td>
<td>749,203</td>
<td>664,506</td>
<td>674,188</td>
<td>783,850</td>
<td>876,834</td>
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</table>

**Renewable**

<table>
<thead>
<tr>
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<th>2018</th>
<th>2019</th>
<th>2020</th>
<th>2021</th>
<th>2022</th>
</tr>
</thead>
<tbody>
<tr>
<td>Asia Pacific</td>
<td>77,835</td>
<td>89,291</td>
<td>85,769</td>
<td>92,961</td>
<td>86,188</td>
</tr>
<tr>
<td>Canada</td>
<td>67,057</td>
<td>54,676</td>
<td>166,838</td>
<td>219,840</td>
<td>230,138</td>
</tr>
<tr>
<td>Europe</td>
<td>250,119</td>
<td>315,170</td>
<td>309,920</td>
<td>340,257</td>
<td>543,430</td>
</tr>
<tr>
<td>Latin America</td>
<td>90,036</td>
<td>88,960</td>
<td>82,663</td>
<td>94,656</td>
<td>97,272</td>
</tr>
<tr>
<td>United States</td>
<td>1,196,703</td>
<td>1,069,824</td>
<td>976,292</td>
<td>1,000,948</td>
<td>942,531</td>
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#### Overall Energy Usage

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<th>2019</th>
<th>2020</th>
<th>2021</th>
<th>2022</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nonrenewable</td>
<td>8,621,842</td>
<td>8,223,270</td>
<td>7,637,419</td>
<td>8,422,607</td>
<td>8,298,794</td>
</tr>
<tr>
<td>Renewable</td>
<td>1,681,750</td>
<td>1,617,921</td>
<td>1,621,481</td>
<td>1,748,662</td>
<td>1,899,558</td>
</tr>
<tr>
<td><strong>TOTAL ENERGY USAGE</strong></td>
<td><strong>10,303,592</strong></td>
<td><strong>9,841,190</strong></td>
<td><strong>9,258,900</strong></td>
<td><strong>10,171,269</strong></td>
<td><strong>10,198,352</strong></td>
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</tbody>
</table>

#### PERCENT ENERGY FROM RENEWABLE SOURCES

<table>
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<th>Year</th>
<th>Percentage</th>
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<tbody>
<tr>
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<td>16.3%</td>
</tr>
<tr>
<td>2019</td>
<td>16.4%</td>
</tr>
<tr>
<td>2020</td>
<td>17.5%</td>
</tr>
<tr>
<td>2021</td>
<td>17.2%</td>
</tr>
<tr>
<td>2022</td>
<td>18.6%</td>
</tr>
</tbody>
</table>

Please note that the numbers have been rounded. Some totals have been affected as a result.
## Environmental Data

### Energy Data

Appendix C

### Renewable and Nonrenewable Electricity Consumption by Region (in Megawatt Hours)

<table>
<thead>
<tr>
<th>Region</th>
<th>2018</th>
<th>2019</th>
<th>2020</th>
<th>2021</th>
<th>2022</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Renewable</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
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</tr>
<tr>
<td>Asia Pacific</td>
<td>77,835</td>
<td>89,291</td>
<td>85,769</td>
<td>92,961</td>
<td>86,188</td>
</tr>
<tr>
<td>Canada</td>
<td>67,057</td>
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<td>166,838</td>
<td>219,840</td>
<td>230,138</td>
</tr>
<tr>
<td>Europe</td>
<td>250,119</td>
<td>315,170</td>
<td>309,920</td>
<td>340,257</td>
<td>543,430</td>
</tr>
<tr>
<td>Latin America</td>
<td>90,036</td>
<td>88,960</td>
<td>82,663</td>
<td>94,656</td>
<td>97,272</td>
</tr>
<tr>
<td>United States</td>
<td>1,196,703</td>
<td>1,069,824</td>
<td>976,292</td>
<td>1,000,948</td>
<td>942,531</td>
</tr>
<tr>
<td><strong>TOTAL RENEWABLE</strong></td>
<td>1,681,750</td>
<td>1,617,921</td>
<td>1,621,481</td>
<td>1,748,662</td>
<td>1,899,558</td>
</tr>
<tr>
<td><strong>Nonrenewable</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Asia Pacific</td>
<td>346,888</td>
<td>375,528</td>
<td>340,912</td>
<td>370,543</td>
<td>334,614</td>
</tr>
<tr>
<td>Canada</td>
<td>158,663</td>
<td>116,290</td>
<td>21,352</td>
<td>17,022</td>
<td>17,906</td>
</tr>
<tr>
<td>Europe</td>
<td>290,195</td>
<td>199,773</td>
<td>231,077</td>
<td>257,206</td>
<td>68,108</td>
</tr>
<tr>
<td>Latin America</td>
<td>184,371</td>
<td>161,638</td>
<td>149,260</td>
<td>169,850</td>
<td>166,383</td>
</tr>
<tr>
<td>United States</td>
<td>749,203</td>
<td>664,506</td>
<td>674,188</td>
<td>783,850</td>
<td>876,834</td>
</tr>
<tr>
<td><strong>TOTAL NONRENEWABLE</strong></td>
<td>1,729,319</td>
<td>1,517,735</td>
<td>1,416,789</td>
<td>1,598,471</td>
<td>1,463,846</td>
</tr>
</tbody>
</table>

Please note that the numbers have been rounded. Some totals have been affected as a result.

### 2022 Direct and Indirect Energy Summary by Region (in Megawatt Hours)

<table>
<thead>
<tr>
<th>Region</th>
<th>RENEWABLE</th>
<th>NON-RENEWABLE</th>
<th>TOTAL BY REGION</th>
</tr>
</thead>
<tbody>
<tr>
<td>Asia Pacific</td>
<td>86,188</td>
<td>1,080,467</td>
<td>1,166,654</td>
</tr>
<tr>
<td>Canada</td>
<td>230,138</td>
<td>291,998</td>
<td>522,136</td>
</tr>
<tr>
<td>Europe</td>
<td>543,430</td>
<td>1,460,714</td>
<td>2,004,144</td>
</tr>
<tr>
<td>Latin America</td>
<td>97,272</td>
<td>733,022</td>
<td>830,294</td>
</tr>
<tr>
<td>United States</td>
<td>942,531</td>
<td>4,732,594</td>
<td>5,675,124</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td>1,899,558</td>
<td>8,298,794</td>
<td>10,198,352</td>
</tr>
</tbody>
</table>
Global Electricity Mix Market-Based

<table>
<thead>
<tr>
<th>CATEGORY</th>
<th>SOURCE</th>
<th>U.S.</th>
<th>NON-U.S.</th>
<th>GLOBAL</th>
</tr>
</thead>
<tbody>
<tr>
<td>Renewable</td>
<td>Hydro</td>
<td>2%</td>
<td>40%</td>
<td>20%</td>
</tr>
<tr>
<td></td>
<td>Wind</td>
<td>47%</td>
<td>18%</td>
<td>34%</td>
</tr>
<tr>
<td></td>
<td>Solar</td>
<td>1%</td>
<td>2%</td>
<td>2%</td>
</tr>
<tr>
<td></td>
<td>Biomass</td>
<td>1%</td>
<td>1%</td>
<td>1%</td>
</tr>
<tr>
<td></td>
<td>Geothermal</td>
<td>0%</td>
<td>0%</td>
<td>0%</td>
</tr>
<tr>
<td></td>
<td>Other Renewable</td>
<td>0%</td>
<td>&lt;1%</td>
<td>&lt;1%</td>
</tr>
<tr>
<td>Non-renewable</td>
<td>Coal</td>
<td>12%</td>
<td>18%</td>
<td>15%</td>
</tr>
<tr>
<td></td>
<td>Oil</td>
<td>&lt;1%</td>
<td>2%</td>
<td>1%</td>
</tr>
<tr>
<td></td>
<td>Gas</td>
<td>20%</td>
<td>14%</td>
<td>17%</td>
</tr>
<tr>
<td></td>
<td>Other Fossil</td>
<td>&lt;1%</td>
<td>&lt;1%</td>
<td>&lt;1%</td>
</tr>
<tr>
<td></td>
<td>Nuclear</td>
<td>16%</td>
<td>4%</td>
<td>11%</td>
</tr>
<tr>
<td></td>
<td>Other Unknown/Purchased Fuel</td>
<td>0%</td>
<td>0%</td>
<td>0%</td>
</tr>
<tr>
<td>TOTAL</td>
<td>U.S.</td>
<td>100%</td>
<td>100%</td>
<td>100%</td>
</tr>
</tbody>
</table>

Global Electricity Mix Location-Based

<table>
<thead>
<tr>
<th>CATEGORY</th>
<th>SOURCE</th>
<th>U.S.</th>
<th>NON-U.S.</th>
<th>GLOBAL</th>
</tr>
</thead>
<tbody>
<tr>
<td>Renewable</td>
<td>Hydro</td>
<td>4%</td>
<td>11%</td>
<td>7%</td>
</tr>
<tr>
<td></td>
<td>Wind</td>
<td>8%</td>
<td>4%</td>
<td>6%</td>
</tr>
<tr>
<td></td>
<td>Solar</td>
<td>1%</td>
<td>3%</td>
<td>2%</td>
</tr>
<tr>
<td></td>
<td>Biomass</td>
<td>1%</td>
<td>2%</td>
<td>2%</td>
</tr>
<tr>
<td></td>
<td>Geothermal</td>
<td>0%</td>
<td>0%</td>
<td>0%</td>
</tr>
<tr>
<td></td>
<td>Other Renewable</td>
<td>0%</td>
<td>&lt;1%</td>
<td>&lt;1%</td>
</tr>
<tr>
<td>Non-renewable</td>
<td>Coal</td>
<td>22%</td>
<td>29%</td>
<td>25%</td>
</tr>
<tr>
<td></td>
<td>Oil</td>
<td>&lt;1%</td>
<td>2%</td>
<td>1%</td>
</tr>
<tr>
<td></td>
<td>Gas</td>
<td>41%</td>
<td>19%</td>
<td>31%</td>
</tr>
<tr>
<td></td>
<td>Other Fossil</td>
<td>&lt;1%</td>
<td>7%</td>
<td>3%</td>
</tr>
<tr>
<td></td>
<td>Nuclear</td>
<td>22%</td>
<td>22%</td>
<td>22%</td>
</tr>
<tr>
<td></td>
<td>Other Unknown/Purchased Fuel</td>
<td>&lt;1%</td>
<td>0%</td>
<td>&lt;1%</td>
</tr>
<tr>
<td>TOTAL</td>
<td>U.S.</td>
<td>100%</td>
<td>100%</td>
<td>100%</td>
</tr>
</tbody>
</table>

Please note that the numbers have been rounded. Some totals have been affected as a result.
**2022 Total Energy Consumed in Our Value Chain (in Megawatt Hours)**

<table>
<thead>
<tr>
<th>CATEGORY</th>
<th>COMPOSITES</th>
<th>INSULATION</th>
<th>ROOFING</th>
<th>TOTAL</th>
</tr>
</thead>
<tbody>
<tr>
<td>Coal</td>
<td>1,743,582</td>
<td>2,913,241</td>
<td>1,652,998</td>
<td>6,309,822</td>
</tr>
<tr>
<td>Natural Gas</td>
<td>1,891,367</td>
<td>2,168,666</td>
<td>2,583,138</td>
<td>6,643,171</td>
</tr>
<tr>
<td>Petrol</td>
<td>807,209</td>
<td>1,467,388</td>
<td>2,259,377</td>
<td>4,533,973</td>
</tr>
<tr>
<td>Bio/Waste</td>
<td>300,035</td>
<td>535,952</td>
<td>553,821</td>
<td>1,389,808</td>
</tr>
<tr>
<td>Non-fossil Electricity</td>
<td>670,619</td>
<td>651,362</td>
<td>661,249</td>
<td>1,983,229</td>
</tr>
<tr>
<td><strong>TOTAL ENERGY</strong></td>
<td><strong>5,412,812</strong></td>
<td><strong>7,736,609</strong></td>
<td><strong>7,710,583</strong></td>
<td><strong>20,860,003</strong></td>
</tr>
</tbody>
</table>

Energy consumption outside of the organization is determined using an economic input-output life cycle assessment-based (EIO-LCA) method. The calculation is performed using the EIO-LCA online tool developed by Carnegie Mellon University. It is based on the respective North American Industry Classification System (NAICS) manufacturing industry sectors associated with Owens Corning’s three major business operations. Net sales figures in the 2022 Owens Corning Annual Report on Form 10-K were used as indicators of, and inputs for, economic activity in each of the three respective sectors. The reported value is reflective of only Scope 3 upstream use for each of our three businesses.

**Energy Disclosures Based on SASB Definitions and Metrics**

<table>
<thead>
<tr>
<th>DISCLOSURE REQUEST</th>
<th>VALUE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total energy consumed in gigajoules (GJ)</td>
<td>36,714,067</td>
</tr>
<tr>
<td>Percentage of energy consumed that was supplied from grid electricity</td>
<td>33%</td>
</tr>
<tr>
<td>Percentage of energy consumed that was from alternative sources</td>
<td>0%</td>
</tr>
<tr>
<td>Percentage of energy consumed that is renewable energy*</td>
<td>15%</td>
</tr>
</tbody>
</table>

* Excluding renewable electricity from residual grid mix data

**2022 Estimated Savings from Energy Investments by Region**

<table>
<thead>
<tr>
<th>LOCATION</th>
<th>ESTIMATED ANNUAL SAVINGS (METRIC TONS CO₂e)</th>
<th>ANNUAL MONETARY SAVINGS (USD)</th>
<th>INVESTMENT REQUIRED (USD)</th>
</tr>
</thead>
<tbody>
<tr>
<td>North America</td>
<td>2,106</td>
<td>$459,271</td>
<td>$1,630,195</td>
</tr>
<tr>
<td>Outside North America</td>
<td>2,304</td>
<td>$549,722</td>
<td>$327,087</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td><strong>4,409</strong></td>
<td><strong>$1,008,993</strong></td>
<td><strong>$1,957,282</strong></td>
</tr>
</tbody>
</table>

Please note that the numbers have been rounded. Some totals have been affected as a result.
### Global Electricity Mix Factors

<table>
<thead>
<tr>
<th>TYPE</th>
<th>LOCATIONS</th>
<th>CALENDAR YEAR</th>
<th>SOURCE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Electricity</td>
<td>Canada</td>
<td>2022</td>
<td>Statistics Canada Electric Power Annual Generation Data (w/ 2021 data)</td>
</tr>
<tr>
<td>Electricity</td>
<td>EU Countries</td>
<td>2022</td>
<td>Association of Issuing Bodies (AIB): European Residual Mixes (w/ 2021 data)</td>
</tr>
<tr>
<td>Electricity</td>
<td>ROW*</td>
<td>2022</td>
<td>International Energy Agency (IEA): Month Electricity Statistics Data (w/ 2020 data)</td>
</tr>
<tr>
<td>Electricity</td>
<td>Singapore</td>
<td>2022</td>
<td>Internationl Energy Agency (IEA): Data and Statistics (w/ 2020 data)</td>
</tr>
<tr>
<td>Electricity</td>
<td>US</td>
<td>2022</td>
<td>US EPA eGRID 2022 (w/ 2020 data)</td>
</tr>
<tr>
<td>Electricity</td>
<td>Canada</td>
<td>2021</td>
<td>Statistics Canada Electric Power Annual Generation Data (w/ 2019 data)</td>
</tr>
<tr>
<td>Electricity</td>
<td>EU Countries</td>
<td>2021</td>
<td>Association of Issuing Bodies (AIB): European Residual Mixes (w/ 2020 data)</td>
</tr>
<tr>
<td>Electricity</td>
<td>ROW*</td>
<td>2021</td>
<td>International Energy Agency (IEA): Month Electricity Statistics Data (w/ 2018 data)</td>
</tr>
<tr>
<td>Electricity</td>
<td>Singapore</td>
<td>2021</td>
<td>Singapore Government Energy Market Authority (w/ 2018 data)</td>
</tr>
<tr>
<td>Electricity</td>
<td>US</td>
<td>2021</td>
<td>US EPA eGRID 2021 (w/ 2019 data)</td>
</tr>
<tr>
<td>Electricity</td>
<td>Canada</td>
<td>2020</td>
<td>Statistics Canada Electric Power Annual Generation Data (w/ 2018 data)</td>
</tr>
<tr>
<td>Electricity</td>
<td>EU Countries</td>
<td>2020</td>
<td>Association of Issuing Bodies (AIB): European Residual Mixes (w/ 2019 data)</td>
</tr>
<tr>
<td>Electricity</td>
<td>ROW*</td>
<td>2020</td>
<td>International Energy Agency (IEA): Month Electricity Statistics Data (w/ 2018 data)</td>
</tr>
<tr>
<td>Electricity</td>
<td>Singapore</td>
<td>2020</td>
<td>Singapore Government Energy Market Authority (w/ 2018 data)</td>
</tr>
<tr>
<td>Electricity</td>
<td>US</td>
<td>2020</td>
<td>US EPA eGRID 2020v2 (w/ 2018 data)</td>
</tr>
<tr>
<td>Electricity</td>
<td>Canada</td>
<td>2019</td>
<td>Statistics Canada Electric Power Annual Generation Data (w/ 2018 data)</td>
</tr>
<tr>
<td>Electricity</td>
<td>EU Countries</td>
<td>2019</td>
<td>Association of Issuing Bodies (AIB): European Residual Mixes (w/ 2018 data)</td>
</tr>
<tr>
<td>Electricity</td>
<td>ROW*</td>
<td>2019</td>
<td>International Energy Agency (IEA): Month Electricity Statistics Data (w/ 2017 data)</td>
</tr>
<tr>
<td>Electricity</td>
<td>Singapore</td>
<td>2019</td>
<td>Singapore Government Energy Market Authority (w/ 2018 data)</td>
</tr>
<tr>
<td>Electricity</td>
<td>US</td>
<td>2019</td>
<td>US EPA eGRID 2018 (w/ 2016 data)</td>
</tr>
<tr>
<td>Electricity</td>
<td>Canada</td>
<td>2018</td>
<td>Statistics Canada Electric Power Annual Generation Data (w/ 2017 data)</td>
</tr>
<tr>
<td>Electricity</td>
<td>EU Countries</td>
<td>2018</td>
<td>Association of Issuing Bodies (AIB): European Residual Mixes (w/ 2017 data)</td>
</tr>
<tr>
<td>Electricity</td>
<td>ROW*</td>
<td>2018</td>
<td>International Energy Agency (IEA): Month Electricity Statistics Data (w/ 2016 data)</td>
</tr>
<tr>
<td>Electricity</td>
<td>Singapore</td>
<td>2018</td>
<td>Singapore Government Energy Market Authority (w/ 2017 data)</td>
</tr>
<tr>
<td>Electricity</td>
<td>US</td>
<td>2018</td>
<td>US EPA eGRID 2018 (w/ 2016 data)</td>
</tr>
</tbody>
</table>

* ROW: Countries besides the US, Canada, Singapore, and the EU
Hydrochlorofluorocarbon (HCFC) emissions are optionally included in Scope 1 emissions, in addition to the Kyoto gases, and the associated emissions are outlined in the table Ozone-Depleting Substances. Hydrofluoroolefin (HFO) emissions are also optionally included in Scope 1 emissions.

### Direct and Indirect Emissions (Metric Tons CO₂e)
Scope 1 and 2 Emissions using **Market-Based** method.

<table>
<thead>
<tr>
<th>Year</th>
<th>Direct (Scope 1)</th>
<th>Indirect (Scope 2)</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>2018</td>
<td>2,813,111</td>
<td>963,720</td>
<td>3,776,832</td>
</tr>
<tr>
<td>2019</td>
<td>2,674,017</td>
<td>895,728</td>
<td>3,569,745</td>
</tr>
<tr>
<td>2020</td>
<td>2,455,658</td>
<td>798,784</td>
<td>3,254,442</td>
</tr>
<tr>
<td>2021</td>
<td>2,408,720</td>
<td>879,004</td>
<td>3,287,724</td>
</tr>
<tr>
<td>2022</td>
<td>2,243,458</td>
<td>715,231</td>
<td>2,958,689</td>
</tr>
</tbody>
</table>

### Direct and Indirect Emissions (Metric Tons CO₂e)
Scope 1 and 2 Emissions using **Location-Based** method.

<table>
<thead>
<tr>
<th>Year</th>
<th>Direct (Scope 1)</th>
<th>Indirect (Scope 2)</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>2018</td>
<td>2,813,111</td>
<td>1,520,332</td>
<td>4,333,443</td>
</tr>
<tr>
<td>2019</td>
<td>2,674,017</td>
<td>1,425,736</td>
<td>4,099,752</td>
</tr>
<tr>
<td>2020</td>
<td>2,455,658</td>
<td>1,311,621</td>
<td>3,767,279</td>
</tr>
<tr>
<td>2021</td>
<td>2,408,720</td>
<td>1,345,291</td>
<td>3,754,011</td>
</tr>
<tr>
<td>2022</td>
<td>2,243,458</td>
<td>1,247,267</td>
<td>3,490,725</td>
</tr>
</tbody>
</table>
### Scope 1 Emissions Breakdown

<table>
<thead>
<tr>
<th>Category</th>
<th>2018</th>
<th>2019</th>
<th>2020</th>
<th>2021</th>
<th>2022</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fossil Fuel Combustion</td>
<td>1,348,441</td>
<td>1,312,651</td>
<td>1,222,245</td>
<td>1,336,162</td>
<td>1,331,611</td>
</tr>
<tr>
<td>Foam Blowing Agent Emissions</td>
<td>1,283,946</td>
<td>1,187,221</td>
<td>1,076,580</td>
<td>910,695</td>
<td>761,058</td>
</tr>
<tr>
<td>Process Emissions</td>
<td>174,569</td>
<td>168,074</td>
<td>153,440</td>
<td>157,045</td>
<td>145,103</td>
</tr>
<tr>
<td>Leased Corporate Aircraft</td>
<td>3,107</td>
<td>2,785</td>
<td>1,066</td>
<td>2,211</td>
<td>2,581</td>
</tr>
<tr>
<td>Leased Corporate Fleet</td>
<td>3,048</td>
<td>3,286</td>
<td>2,327</td>
<td>2,609</td>
<td>3,106</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td><strong>2,813,111</strong></td>
<td><strong>2,674,017</strong></td>
<td><strong>2,455,658</strong></td>
<td><strong>2,408,720</strong></td>
<td><strong>2,243,458</strong></td>
</tr>
</tbody>
</table>

Please note that the numbers have been rounded. Some totals have been affected as a result.
## Scope 1 Total Direct GHG Emissions - Market-Based (Metric Tons CO₂e)

<table>
<thead>
<tr>
<th></th>
<th>2018</th>
<th>2019</th>
<th>2020</th>
<th>2021</th>
<th>2022</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Direct GHG Emissions (Scope 1)</td>
<td>2,813,111</td>
<td>2,674,017</td>
<td>2,455,658</td>
<td>2,408,720</td>
<td>2,243,458</td>
</tr>
<tr>
<td>Data Coverage (% of units of production)</td>
<td>100</td>
<td>100</td>
<td>100</td>
<td>100</td>
<td>100</td>
</tr>
</tbody>
</table>

## Scope 2 Total Indirect GHG Emissions - Market-Based (Metric Tons CO₂e)

<table>
<thead>
<tr>
<th></th>
<th>2018</th>
<th>2019</th>
<th>2020</th>
<th>2021</th>
<th>2022</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Indirect GHG Emissions (Scope 2)</td>
<td>1,520,332</td>
<td>1,425,736</td>
<td>1,311,621</td>
<td>1,345,291</td>
<td>1,247,267</td>
</tr>
<tr>
<td>Data Coverage (% of units of production)</td>
<td>100</td>
<td>100</td>
<td>100</td>
<td>100</td>
<td>100</td>
</tr>
</tbody>
</table>

## Scope 3 Total GHG Emissions (Metric Tons CO₂e)

<table>
<thead>
<tr>
<th>CATEGORIES</th>
<th>2018</th>
<th>2019</th>
<th>2020</th>
<th>2021</th>
<th>2022</th>
</tr>
</thead>
<tbody>
<tr>
<td>Purchased goods and services</td>
<td>2,026,093</td>
<td>1,997,339</td>
<td>1,878,263</td>
<td>2,230,464</td>
<td>2,350,004</td>
</tr>
<tr>
<td>Capital goods</td>
<td>219,941</td>
<td>164,772</td>
<td>129,523</td>
<td>92,210</td>
<td>94,788</td>
</tr>
<tr>
<td>Fuel- and energy-related activities (not included in Scope 1 or Scope 2)</td>
<td>391,854</td>
<td>412,130</td>
<td>345,165</td>
<td>368,340</td>
<td>329,862</td>
</tr>
<tr>
<td>Upstream transportation and distribution</td>
<td>130,071</td>
<td>163,653</td>
<td>134,899</td>
<td>150,379</td>
<td>151,712</td>
</tr>
<tr>
<td>Business travel</td>
<td>13,708</td>
<td>13,931</td>
<td>3,370</td>
<td>3,852</td>
<td>9,172</td>
</tr>
<tr>
<td>Employee commuting</td>
<td>25,083</td>
<td>23,861</td>
<td>22,508</td>
<td>22,912</td>
<td>22,993</td>
</tr>
<tr>
<td>Downstream transportation and distribution</td>
<td>321,120</td>
<td>270,517</td>
<td>331,860</td>
<td>403,012</td>
<td>419,230</td>
</tr>
<tr>
<td>Processing of sold products</td>
<td>410,382</td>
<td>407,629</td>
<td>371,481</td>
<td>429,416</td>
<td>470,168</td>
</tr>
<tr>
<td>End of life treatment of sold products</td>
<td>202,469</td>
<td>190,965</td>
<td>196,019</td>
<td>219,661</td>
<td>228,375</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td>3,740,720</td>
<td>3,644,798</td>
<td>3,413,090</td>
<td>3,920,245</td>
<td>4,076,304</td>
</tr>
</tbody>
</table>

## 2022 Direct GHG Emissions - Market-Based (Metric Tons CO₂e)

<table>
<thead>
<tr>
<th></th>
<th>NORTH AMERICA</th>
<th>OUTSIDE NORTH AMERICA</th>
<th>TOTAL</th>
</tr>
</thead>
<tbody>
<tr>
<td>Direct GHG Emissions</td>
<td>1,562,503</td>
<td>680,955</td>
<td>2,243,458</td>
</tr>
<tr>
<td>Normalized Emissions</td>
<td>–</td>
<td>–</td>
<td>0.2742</td>
</tr>
</tbody>
</table>

## 2022 Indirect GHG Emissions - Market-Based (Metric Tons CO₂e)

<table>
<thead>
<tr>
<th></th>
<th>NORTH AMERICA</th>
<th>OUTSIDE NORTH AMERICA</th>
<th>TOTAL</th>
</tr>
</thead>
<tbody>
<tr>
<td>Direct GHG Emissions</td>
<td>395,235</td>
<td>319,996</td>
<td>715,231</td>
</tr>
<tr>
<td>Normalized Emissions</td>
<td>–</td>
<td>–</td>
<td>0.0874</td>
</tr>
</tbody>
</table>

Please note that the numbers have been rounded. Some totals have been affected as a result.
Ozone-Depleting Substances – HCFCs (Absolute Metric Tons CO₂e)

<table>
<thead>
<tr>
<th>Year</th>
<th>Emissions (MT CO₂e)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2018</td>
<td>390,892</td>
</tr>
<tr>
<td>2019</td>
<td>284,444</td>
</tr>
<tr>
<td>2020</td>
<td>228,937</td>
</tr>
<tr>
<td>2021</td>
<td>191,074</td>
</tr>
<tr>
<td>2022</td>
<td>0</td>
</tr>
</tbody>
</table>

Owens Corning optionally chooses to report our hydrochlorofluorocarbon (HCFC) and hydrofluoroolefin (HFO) emissions within our Scope 1 for transparency.

Excluded from this calculation are the HCFC emissions of 97,226 MT CO₂e from a foam product that we outsourced in Asia in 2022.

Emissions of Ozone-Depleting Substances – Metric Tons of CFC-11 Equivalent (GRI 305-6)

<table>
<thead>
<tr>
<th>Year</th>
<th>Emissions (MT CFC-11 Equivalent)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2018</td>
<td>11.20</td>
</tr>
<tr>
<td>2019</td>
<td>8.05</td>
</tr>
<tr>
<td>2020</td>
<td>6.47</td>
</tr>
<tr>
<td>2021</td>
<td>5.37</td>
</tr>
<tr>
<td>2022</td>
<td>0</td>
</tr>
</tbody>
</table>

CFC-11 is not directly emitted by Owens Corning. This is a calculation of CFC-11 Equivalents in MT from the MT of HCFC blowing agents used and EPA conversion factors to answer GRI 305-6.

Excluded from this calculation are the HCFC emissions of 2.21 MT CFC-11 equivalent from a foam product that we outsourced in Asia in 2022.
### Environmental Data

#### Emissions Data

**Particulate Matter 10 Micrometers or Less in Diameter (PM10)**

<table>
<thead>
<tr>
<th></th>
<th>2018</th>
<th>2019</th>
<th>2020</th>
<th>2021</th>
<th>2022</th>
</tr>
</thead>
<tbody>
<tr>
<td>Absolute Metric Tons</td>
<td>2,885</td>
<td>2,756</td>
<td>2,559</td>
<td>2,918</td>
<td>2,713</td>
</tr>
</tbody>
</table>

**Retired Carbon Offsets**

<table>
<thead>
<tr>
<th>QUANTITY RETIRED</th>
<th>GHG OFFSET</th>
<th>OFFSET TYPE</th>
<th>REGISTRY</th>
<th>PURPOSE OF RETIREMENT</th>
<th>DETAILS OF CREDIT ORIGINATION</th>
</tr>
</thead>
<tbody>
<tr>
<td>29</td>
<td>29 mt CO₂e</td>
<td>Verified Emissions Reductions (VERs)</td>
<td>Gold Standard Impact Registry</td>
<td>Retired in support of 2022 sales of net-zero products</td>
<td>India: Delhi Metro rail efficiency project, related to the implementation of energy efficiency measures in selected stations of the Delhi Metro in India and promoting less GHG intensive transportation models for the region</td>
</tr>
</tbody>
</table>

**GHG Scope 1 and Scope 2 Intensity**

- Scope 1 and Scope 2 (market-based) emissions
- Aggregate Intensity Percentage

![Graph showing GHG Scope 1 and Scope 2 Intensity](image)

<table>
<thead>
<tr>
<th></th>
<th>2018</th>
<th>2019</th>
<th>2020</th>
<th>2021</th>
<th>2022</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Scope 1 and Scope 2 (Market-Based) Emissions</strong></td>
<td>3,776,832</td>
<td>3,569,745</td>
<td>3,254,442</td>
<td>3,287,724</td>
<td>2,958,689</td>
</tr>
<tr>
<td><strong>Aggregate Intensity (MT CO₂e normalized by revenue in millions)</strong></td>
<td>526.527</td>
<td>493.502</td>
<td>455.160</td>
<td>381.218</td>
<td>301.007</td>
</tr>
<tr>
<td><strong>Aggregate Intensity Percentage</strong></td>
<td>100</td>
<td>94</td>
<td>86</td>
<td>72</td>
<td>57</td>
</tr>
</tbody>
</table>
## Source of GHG Emissions Factors

<table>
<thead>
<tr>
<th>TYPE</th>
<th>LOCATIONS</th>
<th>CALENDAR YEAR</th>
<th>SOURCE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Distillate fuel oil No 1</td>
<td>All locations</td>
<td>2018-2022</td>
<td>US EPA MRR: Final Rule (40 CFR 98) - Industrial Sector 2013</td>
</tr>
<tr>
<td>Coke</td>
<td>All locations</td>
<td>2018</td>
<td>The Climate Registry: 2018 Gen. Reporting Protocol - USA Industrial</td>
</tr>
<tr>
<td>Coke</td>
<td>All locations</td>
<td>2019</td>
<td>The Climate Registry: 2019 Gen. Reporting Protocol - USA Industrial</td>
</tr>
<tr>
<td>Coke</td>
<td>All locations</td>
<td>2020</td>
<td>The Climate Registry: 2020 Gen. Reporting Protocol - USA Industrial</td>
</tr>
<tr>
<td>Coke</td>
<td>All locations</td>
<td>2021 - 2022</td>
<td>The Climate Registry: 2021 Gen. Reporting Protocol - USA Industrial</td>
</tr>
<tr>
<td>Liquified Natural Gas (LNG)</td>
<td>All locations</td>
<td>2018</td>
<td>The Climate Registry: 2018 Gen. Reporting Protocol - USA Transport</td>
</tr>
<tr>
<td>Liquified Natural Gas (LNG)</td>
<td>All locations</td>
<td>2019</td>
<td>The Climate Registry: 2019 Gen. Reporting Protocol - USA Transport</td>
</tr>
<tr>
<td>Liquified Natural Gas (LNG)</td>
<td>All locations</td>
<td>2020</td>
<td>The Climate Registry: 2020 Gen. Reporting Protocol - USA Transport</td>
</tr>
<tr>
<td>Liquified Natural Gas (LNG)</td>
<td>All locations</td>
<td>2021-2022</td>
<td>The Climate Registry: 2021 Gen. Reporting Protocol - USA Transport</td>
</tr>
<tr>
<td>Limestone</td>
<td>All locations</td>
<td>All Years</td>
<td>IPCC Mineral Industry Emissions Chapter 2 V3 publication 2006</td>
</tr>
<tr>
<td>Dolomite</td>
<td>All locations</td>
<td>All Years</td>
<td>IPCC Mineral Industry Emissions Chapter 2 V3 publication 2006</td>
</tr>
<tr>
<td>Soda Ash</td>
<td>All locations</td>
<td>All Years</td>
<td>IPCC Mineral Industry Emissions Chapter 2 V3 publication 2006</td>
</tr>
<tr>
<td>Steam Purchased</td>
<td>All locations</td>
<td>All Years</td>
<td>US EPA MRR: Final Rule (40 CFR 98) - Industrial Sector 2013</td>
</tr>
<tr>
<td>District Heating</td>
<td>All locations</td>
<td>All Years</td>
<td>US EPA MRR: Final Rule (40 CFR 98) - Industrial Sector 2013</td>
</tr>
<tr>
<td>Electricity - Market - Utility Emission Factors</td>
<td>Select Locations</td>
<td>2018-2022</td>
<td>Provided factors vary by energy supplier by site and year</td>
</tr>
<tr>
<td>TYPE</td>
<td>LOCATIONS</td>
<td>CALENDAR YEAR</td>
<td>SOURCE</td>
</tr>
<tr>
<td>-------------------------</td>
<td>--------------------</td>
<td>---------------</td>
<td>------------------------------------------------------------------------</td>
</tr>
<tr>
<td>Electricity - Market Residual Mix</td>
<td>EU Countries</td>
<td>2022</td>
<td>Association of Issuing Bodies (AIB): European Residual Mix 2021 v1.0</td>
</tr>
<tr>
<td>Electricity - Market Residual Mix</td>
<td>US</td>
<td>2022</td>
<td>2022 Green-e Residual Mix (2020 certified sales)v2</td>
</tr>
<tr>
<td>Electricity - Location - Regional Sources</td>
<td>US</td>
<td>2022</td>
<td>US EPA eGRID 2022 (w/ 2020 Data)</td>
</tr>
<tr>
<td>Electricity - Market Residual Mix</td>
<td>EU Countries</td>
<td>2021</td>
<td>Association of Issuing Bodies (AIB): European Residual Mix 2020 v1.0</td>
</tr>
<tr>
<td>Electricity - Location - Regional Sources</td>
<td>US</td>
<td>2021</td>
<td>US EPA eGRID 2021 (w/ 2019 Data)</td>
</tr>
<tr>
<td>Electricity - Market Residual Mix</td>
<td>EU Countries</td>
<td>2020</td>
<td>Association of Issuing Bodies (AIB): European Residual Mix 2019 v1.0</td>
</tr>
<tr>
<td>Electricity - Location - Regional Sources</td>
<td>US</td>
<td>2020</td>
<td>US EPA eGRID 2020 v2 (w/ 2018 Data)</td>
</tr>
<tr>
<td>Electricity - Market Residual Mix</td>
<td>EU Countries</td>
<td>2019</td>
<td>Association of Issuing Bodies (AIB): European Residual Mixes 2018</td>
</tr>
<tr>
<td>Electricity - Location - Regional Sources</td>
<td>US</td>
<td>2019</td>
<td>US EPA eGRID 2018 (w/ 2016 data)</td>
</tr>
<tr>
<td>Electricity - Market Residual Mix</td>
<td>EU Countries</td>
<td>2018</td>
<td>Association of Issuing Bodies (AIB): European Residual Mixes 2018</td>
</tr>
<tr>
<td>Electricity - Location - Regional Sources</td>
<td>US</td>
<td>2018</td>
<td>US EPA eGRID 2018 (w/ 2016 data)</td>
</tr>
<tr>
<td>Leased Facilities</td>
<td>Warehouse</td>
<td>2019-2022</td>
<td>Energy Star Portfolio Manager - U.S. Energy Use Intensity by Property Type; publication 8/2018</td>
</tr>
<tr>
<td>Leased Facilities</td>
<td>Office/Other</td>
<td>2019-2022</td>
<td>Energy Star Portfolio Manager - U.S. Energy Use Intensity by Property Type; publication 8/2018</td>
</tr>
<tr>
<td>Leased Facilities</td>
<td>Warehouse</td>
<td>2018</td>
<td>Energy Star Portfolio Manager - Energy Star Score for Warehouses in the United States; publication 7/13</td>
</tr>
<tr>
<td>Leased Facilities</td>
<td>Office/Other</td>
<td>2018</td>
<td>Energy Star Portfolio Manager - Energy Use in Office Buildings; publication 10/2012</td>
</tr>
</tbody>
</table>

* ROW includes EU countries when using the location-based approach. Residual mix data from AIB is used in market-based emissions calculations only
### Water Consumption (Cubic Meters)

<table>
<thead>
<tr>
<th></th>
<th>2018</th>
<th>2019</th>
<th>2020</th>
<th>2021</th>
<th>2022</th>
</tr>
</thead>
<tbody>
<tr>
<td>Withdrawal</td>
<td>10,656,402</td>
<td>10,522,679</td>
<td>9,455,562</td>
<td>10,640,750</td>
<td>11,045,530</td>
</tr>
<tr>
<td>Discharge</td>
<td>5,666,241</td>
<td>5,828,809</td>
<td>5,218,886</td>
<td>5,336,326</td>
<td>5,387,315</td>
</tr>
<tr>
<td>Consumption</td>
<td>4,990,161</td>
<td>4,693,870</td>
<td>4,236,676</td>
<td>5,304,424</td>
<td>5,658,214</td>
</tr>
</tbody>
</table>

### Water Withdrawal by Source

![ABSOLUTE CUBIC METERS (IN MILLIONS)](chart)

<table>
<thead>
<tr>
<th>Source</th>
<th>2018</th>
<th>2019</th>
<th>2020</th>
<th>2021</th>
<th>2022</th>
</tr>
</thead>
<tbody>
<tr>
<td>Municipal Water</td>
<td>7,575,660</td>
<td>7,838,880</td>
<td>7,019,926</td>
<td>8,074,720</td>
<td>8,118,302</td>
</tr>
<tr>
<td>Well Water</td>
<td>2,458,714</td>
<td>2,028,623</td>
<td>1,709,518</td>
<td>1,885,111</td>
<td>2,243,321</td>
</tr>
<tr>
<td>Surface Water</td>
<td>367,753</td>
<td>397,720</td>
<td>413,751</td>
<td>363,039</td>
<td>369,818</td>
</tr>
<tr>
<td>Third Party Supplier Water</td>
<td>182,998</td>
<td>181,658</td>
<td>243,680</td>
<td>235,427</td>
<td>240,659</td>
</tr>
<tr>
<td>Stormwater</td>
<td>71,277</td>
<td>75,798</td>
<td>68,687</td>
<td>82,453</td>
<td>73,429</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td><strong>10,656,402</strong></td>
<td><strong>10,522,679</strong></td>
<td><strong>9,455,562</strong></td>
<td><strong>10,640,750</strong></td>
<td><strong>11,045,530</strong></td>
</tr>
</tbody>
</table>

Please note that the numbers have been rounded. Some totals have been affected as a result.
Environmental Data

Water Data

Water Discharge by Destination

![Bar chart showing water discharge by destination from 2018 to 2022.]

Water Discharge by Location (Cubic Meters)

<table>
<thead>
<tr>
<th></th>
<th>2018</th>
<th>2019</th>
<th>2020</th>
<th>2021</th>
<th>2022</th>
</tr>
</thead>
<tbody>
<tr>
<td>North America</td>
<td>3,055,087</td>
<td>3,094,168</td>
<td>2,779,522</td>
<td>2,938,614</td>
<td>3,095,789</td>
</tr>
<tr>
<td>Outside North America</td>
<td>2,611,154</td>
<td>2,734,641</td>
<td>2,439,363</td>
<td>2,397,712</td>
<td>2,291,527</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td><strong>5,666,241</strong></td>
<td><strong>5,828,809</strong></td>
<td><strong>5,218,886</strong></td>
<td><strong>5,336,326</strong></td>
<td><strong>5,387,315</strong></td>
</tr>
</tbody>
</table>

Water Quality 2022

<table>
<thead>
<tr>
<th>Effluent Type</th>
<th>2022</th>
</tr>
</thead>
<tbody>
<tr>
<td>Effluent - BOD</td>
<td>40.56</td>
</tr>
<tr>
<td>Effluent - COD</td>
<td>206.42</td>
</tr>
<tr>
<td>Effluent - TSS</td>
<td>35.70</td>
</tr>
</tbody>
</table>

Average Discharge Quality by Effluent Type

In average milligrams of effluent per liter of water.

Estimated Water Savings by Business (2018-2022)

<table>
<thead>
<tr>
<th></th>
<th>Cubic Meters</th>
<th>USD</th>
</tr>
</thead>
<tbody>
<tr>
<td>Composites</td>
<td>151,701</td>
<td>144,682</td>
</tr>
<tr>
<td>Insulation</td>
<td>988,110</td>
<td>942,393</td>
</tr>
<tr>
<td>Roofing</td>
<td>457,787</td>
<td>436,606</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td><strong>1,597,598</strong></td>
<td><strong>1,523,681</strong></td>
</tr>
</tbody>
</table>

Please note that the numbers have been rounded. Some totals have been affected as a result.
### WITHDRAWAL BY SOURCE

<table>
<thead>
<tr>
<th>Source</th>
<th>Withdrawal (in Cubic Meters)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Municipal Water</td>
<td>1,862,300</td>
</tr>
<tr>
<td>Well Water</td>
<td>759,782</td>
</tr>
<tr>
<td>Surface Water</td>
<td>16,549</td>
</tr>
<tr>
<td>Third Party Supplier Water</td>
<td>76,201</td>
</tr>
<tr>
<td>Stormwater</td>
<td>0</td>
</tr>
<tr>
<td>Withdrawal (Other)</td>
<td>0</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td><strong>2,714,832</strong></td>
</tr>
</tbody>
</table>

### DISCHARGE BY DESTINATION

<table>
<thead>
<tr>
<th>Destination</th>
<th>Discharge (in Cubic Meters)</th>
</tr>
</thead>
<tbody>
<tr>
<td>POTW</td>
<td>972,327</td>
</tr>
<tr>
<td>Surface Water</td>
<td>407,174</td>
</tr>
<tr>
<td>Off-Site Shipment</td>
<td>0</td>
</tr>
<tr>
<td>Discharge (other)</td>
<td>1,658</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td><strong>1,381,159</strong></td>
</tr>
</tbody>
</table>

### 50% Aggregate Intensity Reduction Water Withdrawal High Water Stress Sites

#### WATER WITHDRAWAL INTENSITY

<table>
<thead>
<tr>
<th>High Water Stress Sites</th>
<th>2018</th>
<th>2019</th>
<th>2020</th>
<th>2021</th>
<th>2022</th>
</tr>
</thead>
<tbody>
<tr>
<td>Absolute Cubic Meters</td>
<td>3,801,770</td>
<td>3,933,765</td>
<td>3,506,118</td>
<td>3,826,248</td>
<td>4,130,428</td>
</tr>
<tr>
<td>Aggregate Intensity Percentage</td>
<td>100</td>
<td>100</td>
<td>91</td>
<td>79</td>
<td>75</td>
</tr>
<tr>
<td>Aggregate Intensity (Cubic Meters Normalized by Revenue, in Millions)</td>
<td>3,161</td>
<td>3,148</td>
<td>2,885</td>
<td>2,512</td>
<td>2,358</td>
</tr>
</tbody>
</table>

#### WATER WITHDRAWAL INTENSITY

<table>
<thead>
<tr>
<th>All Remaining Sites</th>
<th>2018</th>
<th>2019</th>
<th>2020</th>
<th>2021</th>
<th>2022</th>
</tr>
</thead>
<tbody>
<tr>
<td>Absolute Cubic Meters</td>
<td>6,854,632</td>
<td>6,588,914</td>
<td>5,949,444</td>
<td>6,814,502</td>
<td>6,915,102</td>
</tr>
<tr>
<td>Aggregate Intensity Percentage</td>
<td>100</td>
<td>93</td>
<td>82</td>
<td>78</td>
<td>68</td>
</tr>
<tr>
<td>Aggregate Intensity (Cubic Meters Normalized by Revenue, in Millions)</td>
<td>1,322</td>
<td>1,231</td>
<td>1,078</td>
<td>1,028</td>
<td>899</td>
</tr>
</tbody>
</table>
### 2022 Water Withdrawal by Source with Freshwater Breakdown (Cubic Meters)

<table>
<thead>
<tr>
<th>WITHDRAWAL BY SOURCE</th>
<th>ALL SITES</th>
<th>HIGH WATER STRESS SITES</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>WITHDRAWAL</td>
<td>WITHDRAWAL</td>
</tr>
<tr>
<td>Municipal Water</td>
<td>8,118,302</td>
<td>3,281,042</td>
</tr>
<tr>
<td>Freshwater</td>
<td>8,118,302</td>
<td>3,281,042</td>
</tr>
<tr>
<td>Other Water</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Well Water</td>
<td>2,243,321</td>
<td>756,636</td>
</tr>
<tr>
<td>Freshwater</td>
<td>2,243,321</td>
<td>756,636</td>
</tr>
<tr>
<td>Other Water</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Surface Water</td>
<td>369,818</td>
<td>16,549</td>
</tr>
<tr>
<td>Freshwater</td>
<td>369,818</td>
<td>16,549</td>
</tr>
<tr>
<td>Other Water</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Third-Party Supplier Water</td>
<td>240,659</td>
<td>76,201</td>
</tr>
<tr>
<td>Freshwater</td>
<td>240,659</td>
<td>76,201</td>
</tr>
<tr>
<td>Other Water</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Stormwater</td>
<td>73,429</td>
<td>0</td>
</tr>
<tr>
<td>Freshwater</td>
<td>73,429</td>
<td>0</td>
</tr>
<tr>
<td>Other Water</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Withdrawal (Other)</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Freshwater</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Other Water</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td><strong>11,045,530</strong></td>
<td><strong>4,130,428</strong></td>
</tr>
<tr>
<td>Freshwater</td>
<td><strong>11,045,530</strong></td>
<td><strong>4,130,428</strong></td>
</tr>
<tr>
<td>Other Water</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>

Please note that the numbers have been rounded. Some totals have been affected as a result.
### 2022 Water Discharge by Destination with Freshwater Breakdown (Cubic Meters)

<table>
<thead>
<tr>
<th>DISCHARGE BY DESTINATION</th>
<th>ALL SITES</th>
<th>HIGH WATER STRESS SITES</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>DISCHARGE</td>
<td>DISCHARGE</td>
</tr>
<tr>
<td>POTW</td>
<td>4,272,583</td>
<td>1,912,149</td>
</tr>
<tr>
<td>Freshwater</td>
<td>4,272,583</td>
<td>1,912,149</td>
</tr>
<tr>
<td>Other Water</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Surface Water</td>
<td>1,100,121</td>
<td>463,974</td>
</tr>
<tr>
<td>Freshwater</td>
<td>1,100,121</td>
<td>463,974</td>
</tr>
<tr>
<td>Other Water</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Discharge (Other)</td>
<td>13,546</td>
<td>0</td>
</tr>
<tr>
<td>Freshwater</td>
<td>13,546</td>
<td>0</td>
</tr>
<tr>
<td>Other Water</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Off-Site Shipment</td>
<td>1,065</td>
<td>0</td>
</tr>
<tr>
<td>Freshwater</td>
<td>1,065</td>
<td>0</td>
</tr>
<tr>
<td>Other Water</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td>5,387,315</td>
<td>2,376,123</td>
</tr>
<tr>
<td>Freshwater</td>
<td>5,387,315</td>
<td>2,376,123</td>
</tr>
<tr>
<td>Other Water</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>

### 2022 Water Consumption Areas with Water Stress (Cubic Meters)

<table>
<thead>
<tr>
<th></th>
<th>ALL SITES</th>
<th>HIGH WATER STRESS SITES</th>
</tr>
</thead>
<tbody>
<tr>
<td>Withdrawal</td>
<td>11,045,530</td>
<td>4,130,428</td>
</tr>
<tr>
<td>Discharge</td>
<td>5,387,315</td>
<td>2,376,123</td>
</tr>
<tr>
<td>Consumption</td>
<td>5,658,214</td>
<td>1,754,305</td>
</tr>
</tbody>
</table>

### High Water Stress Footprint

- **Absolute Cubic Meters**
- **Aggregate Intensity Percentage**

#### Absolute Cubic Meters
- 2018: 3,801,770
- 2019: 3,933,765
- 2020: 3,506,118
- 2021: 3,826,248
- 2022: 4,130,428

#### Aggregate Intensity Percentage
- 2018: 100
- 2019: 100
- 2020: 91
- 2021: 79
- 2022: 75

#### Aggregate Intensity (Cubic Meters Normalized by Revenue - In Millions)
- 2018: 3,161
- 2019: 3,148
- 2020: 2,885
- 2021: 2,512
- 2022: 2,358

Please note that the numbers have been rounded. Some totals have been affected as a result.
### Nonhazardous Waste by Disposal Method (Metric Tons)

<table>
<thead>
<tr>
<th>Disposal Method</th>
<th>2018</th>
<th>2019</th>
<th>2020</th>
<th>2021</th>
<th>2022</th>
</tr>
</thead>
<tbody>
<tr>
<td>Waste-to-Landfill (on-site)</td>
<td>342,838</td>
<td>303,199</td>
<td>282,826</td>
<td>332,712</td>
<td>353,413</td>
</tr>
<tr>
<td>Recycled Internally (on-site)</td>
<td>300,696</td>
<td>258,381</td>
<td>233,419</td>
<td>256,252</td>
<td>281,437</td>
</tr>
<tr>
<td>Recycled Externally (off-site)</td>
<td>190,086</td>
<td>199,887</td>
<td>183,996</td>
<td>216,868</td>
<td>188,642</td>
</tr>
<tr>
<td>Recycled Internally with External Processing</td>
<td>18,182</td>
<td>42,204</td>
<td>54,224</td>
<td>53,466</td>
<td>51,095</td>
</tr>
<tr>
<td>Recultivation</td>
<td>7,841</td>
<td>13,836</td>
<td>27,163</td>
<td>14,821</td>
<td>8,162</td>
</tr>
<tr>
<td>Incinerated with Energy Recovery</td>
<td>4,369</td>
<td>4,199</td>
<td>6,978</td>
<td>8,525</td>
<td>5,115</td>
</tr>
<tr>
<td>Treated and Recycled</td>
<td>1,600</td>
<td>2,118</td>
<td>1,808</td>
<td>2,617</td>
<td>2,326</td>
</tr>
<tr>
<td>Incinerated without Energy Recovery</td>
<td>725</td>
<td>186</td>
<td>506</td>
<td>881</td>
<td>823</td>
</tr>
<tr>
<td>Controlled Confinement*</td>
<td>549</td>
<td>200</td>
<td>137</td>
<td>186</td>
<td>139</td>
</tr>
<tr>
<td>Composting</td>
<td>72</td>
<td>73</td>
<td>24</td>
<td>19</td>
<td>25</td>
</tr>
<tr>
<td>Return to Supplier</td>
<td>14</td>
<td>2</td>
<td>2</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>Cross-Plant Recycle</td>
<td>1,116</td>
<td>1,089</td>
<td>93</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td><strong>GRAND TOTAL</strong></td>
<td><strong>868,087</strong></td>
<td><strong>825,374</strong></td>
<td><strong>791,174</strong></td>
<td><strong>886,348</strong></td>
<td><strong>891,180</strong></td>
</tr>
</tbody>
</table>

*Owens Corning considers Controlled Confinement as Waste-to-Landfill for reporting purposes. Please note that the numbers have been rounded. Some totals have been affected as a result.*
### Nonhazardous Waste by Business (Metric Tons)

<table>
<thead>
<tr>
<th></th>
<th>2018</th>
<th>2019</th>
<th>2020</th>
<th>2021</th>
<th>2022</th>
</tr>
</thead>
<tbody>
<tr>
<td>Corporate</td>
<td>1,231</td>
<td>2,206</td>
<td>1,031</td>
<td>998</td>
<td>844</td>
</tr>
<tr>
<td>Composites</td>
<td>196,041</td>
<td>179,826</td>
<td>162,212</td>
<td>198,362</td>
<td>218,461</td>
</tr>
<tr>
<td>Insulation</td>
<td>581,198</td>
<td>554,522</td>
<td>535,185</td>
<td>595,350</td>
<td>582,868</td>
</tr>
<tr>
<td>Roofing</td>
<td>89,616</td>
<td>88,820</td>
<td>92,746</td>
<td>91,637</td>
<td>89,007</td>
</tr>
<tr>
<td><strong>GRAND TOTAL</strong></td>
<td>868,087</td>
<td>825,374</td>
<td>791,174</td>
<td>886,348</td>
<td>891,180</td>
</tr>
</tbody>
</table>

### Hazardous Waste Intensity (Normalized by Metric Tons of Product Produced)

<table>
<thead>
<tr>
<th>Year</th>
<th>Diverted</th>
<th>Not Diverted</th>
</tr>
</thead>
<tbody>
<tr>
<td>2018</td>
<td>0.00049</td>
<td></td>
</tr>
<tr>
<td>2019</td>
<td>0.00079</td>
<td></td>
</tr>
<tr>
<td>2020</td>
<td>0.00052</td>
<td></td>
</tr>
<tr>
<td>2021</td>
<td>0.00058</td>
<td></td>
</tr>
<tr>
<td>2022</td>
<td>0.00061</td>
<td></td>
</tr>
</tbody>
</table>

### Diverted vs. Not Diverted Waste (Metric Tons)

<table>
<thead>
<tr>
<th>Year</th>
<th>Diverted</th>
<th>Not Diverted</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>2018</td>
<td>521,225</td>
<td>350,502</td>
<td>871,727</td>
</tr>
<tr>
<td>2019</td>
<td>519,066</td>
<td>312,257</td>
<td>831,323</td>
</tr>
<tr>
<td>2020</td>
<td>501,823</td>
<td>293,209</td>
<td>795,032</td>
</tr>
<tr>
<td>2021</td>
<td>545,335</td>
<td>345,840</td>
<td>891,175</td>
</tr>
<tr>
<td>2022</td>
<td>533,142</td>
<td>363,036</td>
<td>896,178</td>
</tr>
</tbody>
</table>

Energy usage is correlated to production.

In 2022, 59% of our total waste generated was recycled. This includes the categories Recycled Internally (on-site), Recycled Externally (off-site), Recycled Internally with External Processing, Treated and Recycled, and Cross-Plant Recycle for both hazardous and non-hazardous waste.
Hazardous Waste by Disposal Method (Metric Tons)

<table>
<thead>
<tr>
<th>Disposal Method</th>
<th>2018</th>
<th>2019</th>
<th>2020</th>
<th>2021</th>
<th>2022</th>
</tr>
</thead>
<tbody>
<tr>
<td>Waste-to-Landfill</td>
<td>1,595</td>
<td>1,234</td>
<td>2,090</td>
<td>2,258</td>
<td>2,571</td>
</tr>
<tr>
<td>Recycled Internally (on-site)</td>
<td>961</td>
<td>835</td>
<td>824</td>
<td>825</td>
<td>1,018</td>
</tr>
<tr>
<td>Incinerated with Energy Recovery</td>
<td>25</td>
<td>2,916</td>
<td>337</td>
<td>845</td>
<td>643</td>
</tr>
<tr>
<td>Recycled Externally (off-site)</td>
<td>566</td>
<td>407</td>
<td>219</td>
<td>398</td>
<td>253</td>
</tr>
<tr>
<td>Treated and Recycled</td>
<td>91</td>
<td>235</td>
<td>52</td>
<td>68</td>
<td>176</td>
</tr>
<tr>
<td>Incinerated without Energy Recovery</td>
<td>147</td>
<td>146</td>
<td>138</td>
<td>238</td>
<td>171</td>
</tr>
<tr>
<td>Controlled Confinement</td>
<td>255</td>
<td>177</td>
<td>197</td>
<td>195</td>
<td>161</td>
</tr>
<tr>
<td>Recultivation</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>4</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td>3,640</td>
<td>5,950</td>
<td>3,858</td>
<td>4,827</td>
<td>4,998</td>
</tr>
</tbody>
</table>

In 2022, we generated 4,998 metric tons of hazardous waste, which is only 0.56% of the total waste generated. A total of 2,732 metric tons of hazardous waste was sent to landfill, which includes waste disposed of through controlled confinement.

Hazardous Waste by Business (Metric Tons)

<table>
<thead>
<tr>
<th>Business</th>
<th>2018</th>
<th>2019</th>
<th>2020</th>
<th>2021</th>
<th>2022</th>
</tr>
</thead>
<tbody>
<tr>
<td>Corporate</td>
<td>24</td>
<td>20</td>
<td>27</td>
<td>18</td>
<td>12</td>
</tr>
<tr>
<td>Composites</td>
<td>1,128</td>
<td>899</td>
<td>742</td>
<td>1,095</td>
<td>1,206</td>
</tr>
<tr>
<td>Insulation</td>
<td>2,467</td>
<td>5,002</td>
<td>3,034</td>
<td>3,648</td>
<td>3,719</td>
</tr>
<tr>
<td>Roofing</td>
<td>21</td>
<td>29</td>
<td>55</td>
<td>66</td>
<td>61</td>
</tr>
<tr>
<td><strong>GRAND TOTAL</strong></td>
<td>3,640</td>
<td>5,950</td>
<td>3,858</td>
<td>4,827</td>
<td>4,998</td>
</tr>
</tbody>
</table>

Please note that the numbers have been rounded. Some totals have been affected as a result.
GENERAL DISCLOSURES
LIST OF EMPLOYEE BENEFITS

Appended to this Appendix D

Owens Corning offers a wide range of competitive benefits, allowing our employees to choose what best fits their individual needs. Benefits are made available to regular, full-time employees and some part-time employees working at least 24 hours per week. These benefits vary by country, business unit, and work location, and not all benefits are available at all locations.

Health and Wellness Benefits

- Medical insurance
  - Employee healthcare
  - Family healthcare, including domestic partners
  - Dental
  - Vision
- Short-term and long-term disability
- Employee Assistance Program
- Fertility, surrogacy, and adoption benefits
- Wellness and fitness programs
- Onsite fitness facilities (at some locations)
- Wellness credits and access to health improvement programs
- Preventive healthcare programs
- Retirement healthcare benefits (for employees hired before 1/1/2006)

Employment Opportunity and Security Benefits

- Recall rights for laid-off employees
- Job security initiatives for redeployment, including retraining, relocation, work-sharing, and outplacement services
- Matching gift programs
- Education benefits for employees and their families
- Mentoring programs
- Employee recognition programs
- Workforce training, skills, and leadership development programs
- Tuition reimbursement (other than career training)

Work/Life Support Programs

- Maternity and/or paternity leave
- Flexible work schemes and work sharing
- Paid and unpaid leaves of absence
- Bereavement leaves
- Paid vacation and holidays
- Short-term disability
- Long-term disability
- Survivor benefits

Financial and Retirement Benefits

- Bonus/incentive pay
- 401(k) financial education
- 401(k) match
- Health savings account
- Matching gift programs
- Life insurance
- Business travel accident protection
- Employee stock purchase programs
- Retirement savings plans

Trend of Employee Well-Being

<table>
<thead>
<tr>
<th></th>
<th>2018</th>
<th>2019</th>
<th>2020</th>
<th>2021</th>
<th>2022</th>
</tr>
</thead>
<tbody>
<tr>
<td>Employee Engagement</td>
<td>88%</td>
<td>74%</td>
<td>74%</td>
<td>89%</td>
<td>89%</td>
</tr>
<tr>
<td>% of employees responding</td>
<td>62%</td>
<td>84%</td>
<td>85%</td>
<td>73%</td>
<td>73%</td>
</tr>
</tbody>
</table>

*This table includes the results of both our primary and staff employee engagement surveys*
Better Government Fund 2022 Recipients

**Party**
- Democrats 60%
- Republicans 40%

**Category**
- Senate 26%
- House 32%
- Committees 28%
- State Races 14%

**2022 Senate and House Distributions**

**Republicans**

<table>
<thead>
<tr>
<th>MEMBER</th>
<th>STATE</th>
<th>BUDGET</th>
<th>ACTUAL</th>
</tr>
</thead>
<tbody>
<tr>
<td>Boozman</td>
<td>AR</td>
<td>$5,000</td>
<td>$2,500</td>
</tr>
<tr>
<td>Scott</td>
<td>SC</td>
<td>$6,000</td>
<td>0</td>
</tr>
<tr>
<td>Young</td>
<td>IN</td>
<td>$5,000</td>
<td>$2,500</td>
</tr>
<tr>
<td>Balderson</td>
<td>OH</td>
<td>$6,000</td>
<td>$3,500</td>
</tr>
<tr>
<td>Elzey</td>
<td>TX</td>
<td>$2,000</td>
<td>0</td>
</tr>
<tr>
<td>Joyce</td>
<td>OH</td>
<td>$2,000</td>
<td>0</td>
</tr>
<tr>
<td>Latta</td>
<td>OH</td>
<td>$6,000</td>
<td>$1,000</td>
</tr>
<tr>
<td>Womack</td>
<td>AR</td>
<td>$2,000</td>
<td>0</td>
</tr>
</tbody>
</table>

**Democrats**

<table>
<thead>
<tr>
<th>MEMBER</th>
<th>STATE</th>
<th>BUDGET</th>
<th>ACTUAL</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hassan</td>
<td>NH</td>
<td>$5,000</td>
<td>$1,000</td>
</tr>
<tr>
<td>Sinema</td>
<td>AZ</td>
<td>$5,000</td>
<td>0</td>
</tr>
<tr>
<td>Bonamici</td>
<td>OR</td>
<td>$3,000</td>
<td>$1,000</td>
</tr>
<tr>
<td>Kaptur</td>
<td>OH</td>
<td>$2,500</td>
<td>$5,000</td>
</tr>
<tr>
<td>Tonko</td>
<td>NY</td>
<td>$2,500</td>
<td>$2,500</td>
</tr>
<tr>
<td>Veasey</td>
<td>TX</td>
<td>$4,000</td>
<td>$2,000</td>
</tr>
</tbody>
</table>

**2022 Party Committee and State Distributions**

**National Party Committees**

<table>
<thead>
<tr>
<th>NAME</th>
<th>PARTY</th>
<th>BUDGET</th>
<th>ACTUAL</th>
</tr>
</thead>
<tbody>
<tr>
<td>DSCC</td>
<td>D</td>
<td>$5,000</td>
<td>$5,000</td>
</tr>
<tr>
<td>DCCC</td>
<td>D</td>
<td>$5,000</td>
<td>$5,000</td>
</tr>
</tbody>
</table>

**State and Local Expenditures**

<table>
<thead>
<tr>
<th>NAME</th>
<th>PARTY</th>
<th>BUDGET</th>
<th>ACTUAL</th>
</tr>
</thead>
<tbody>
<tr>
<td>Govenor Mike DeWine (Ohio)</td>
<td>R</td>
<td>$10,000</td>
<td>$5,000</td>
</tr>
</tbody>
</table>
Customer Satisfaction

We collected feedback from nearly 900 respondents, representing all three of our integrated businesses, their distinct customer types, contractors and locations. The survey allows us to measure overall satisfaction and the Net Promoter Score (NPS) as well as to go into more detail across customer touch points to help drive specific improvements. In 2022, the NPS score was 57 for the company, based on an index ranging from -100 to 100.

2022 Financial Assistance

Owens Corning receives financial assistance in the form of various tax credits, which is reflected in the table below.

<table>
<thead>
<tr>
<th>COUNTRY</th>
<th>TAX RELIEF AND TAX CREDITS</th>
<th>SUBSIDIES</th>
<th>GRANTS</th>
<th>AWARDS</th>
<th>ROYALTY HOLIDAYS</th>
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<td><strong>$7,399,793</strong></td>
<td><strong>$158,326</strong></td>
<td><strong>$24,673</strong></td>
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<td><strong>$-</strong></td>
<td><strong>$1,331,751</strong></td>
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</table>

1. Grants include: green production grants and other relevant types of grants
2. Subsidies include: business development, educational, employment, and other business relevant subsidies
3. Tax relief and tax credits include: federal R&D tax credits, foreign tax credits and other federal & state credits.
   The majority of this category is reported under ASC 740.
**Tax**

Owens Corning’s tax strategy is guided by the following principles:

1. Ensure that all tax filings and payments are made accurately and in a timely manner.
2. Build and maintain transparent and collaborative relationships with tax authorities.
3. Evaluate and mitigate risk through rigorous review processes and controls, including by external auditors.
4. Implement only those tax initiatives that are consistent with the company’s business objectives and risk profile.

The company has a global team of tax professionals in many of its operating jurisdictions. Each location manages their respective tax affairs in accordance with Owens Corning’s Code of Conduct, global tax strategy, policies, and procedures. The chief financial officer has the ultimate responsibility for Owens Corning’s tax strategy. The vice president of tax oversees the day-to-day operations of the tax function including the execution of the company’s tax objectives and policies. Tax matters are reported to the board’s audit and finance committees on a regular basis.

Information about Owens Corning’s taxes is provided in Note 19 of the company’s Form 10-K filed with the SEC. The information is bifurcated into U.S. and Foreign because the U.S. provides the majority of the company’s earnings before interest and taxes (EBIT). The management discussion and analysis (MD&A) section of Form 10-K provides an explanation of why the company’s global effective tax rate differs from the U.S. statutory rate. An additional table is provided in Note 19 Income Taxes to further explain the material differences between the effective tax rate and the statutory tax rate.

Risk management is a critical part of Owens Corning’s tax function. The tax function has rigorous processes and controls in place to identify, assess, and measure known, new, and emerging risks. The company’s public disclosures related to tax are reviewed by an external audit firm as part of the Company’s quarterly and annual audit process. The risk of tax law changes is regularly monitored and analyzed using research software, trade and news publications, and active participation in tax associations. The company tracks proposed tax law changes globally to determine which changes could potentially have an impact on the company’s tax position, including the utilization of its tax attributes. Appropriate measures are then taken to mitigate the negative impact of such changes.

In addition, the tax function works very closely with the company’s Corporate Financial Planning & Analysis (FP&A) and business finance and operational teams to understand both the short-term and the long-term trends of our global operations. Tax planning and operational initiatives are identified, analyzed, and implemented to support and complement these business objectives.

Lastly, Owens Corning seeks to develop and maintain open and constructive relationships with all stakeholders. The tax function collaborates with the company’s government affairs group, as well as other tax and trade organizations, to advocate public policy and legislative matters as they relate to tax. The company also strives to resolve disputes through mutual transparency and collaboration, always behaving in the utmost professional and ethical manner with tax authorities.
## Our Partnerships and Collaborations with Organizations/Governing Bodies

<table>
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<tr>
<th><strong>COMMUNITIES</strong></th>
<th><strong>MEMBER ONLY</strong></th>
<th><strong>POSITION IN GOVERNANCE BODIES</strong></th>
<th><strong>PARTICIPATES IN PROJECTS/COMMITTEES</strong></th>
<th><strong>PROVIDES SUBSTANTIVE FUNDS BEYOND ROUTINE MEMBERSHIP</strong></th>
<th><strong>VIEWS RELATIONSHIP AS STRATEGIC</strong></th>
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## GENERAL DISCLOSURES
### KEY PARTNERSHIPS

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## GENERAL DISCLOSURES
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<th>Position in Governance Bodies</th>
<th>Participates in Projects/Committees</th>
<th>Provides Substantive Funds Beyond Routine Membership</th>
<th>Views Relationship as Strategic</th>
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## GENERAL DISCLOSURES

### KEY PARTNERSHIPS

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| American Center for Life Cycle Assessment | | | ✔ | | ✔ |
| American Chemistry Council – Spray Foam Coalition | | | ✔ | | ✔ |
| American Council for an Energy-Efficient Economy | | | | | ✔ |
| American Institute of Chemical Engineers | | | | ✔ | ✔ |
| American Society for Testing and Materials | | | ✔ | | ✔ |
| American Society of Civil Engineers | | | | | ✔ |
| American Society of Heating, Refrigerating and Air-Conditioning Engineers | | | ✔ | | ✔ |
| American Society of Safety Professionals | | | | | ✔ |
| ASTM International | | | ✔ | | ✔ |
| Building Performance Institute | | | ✔ | | ✔ |
| Business Roundtable – National and State Levels | | | ✔ | | ✔ |
| California Contract Cities Association | | | | | ✔ |
| Campbell Institute | | | ✔ | | ✔ |
| Carbon Leadership Forum | | | | ✔ | ✔ |
| Energy Efficiency Business Coalition | | | ✔ | | ✔ |
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## GENERAL DISCLOSURES
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<th>Position in Governance Bodies</th>
<th>Participates in Projects/Committees</th>
<th>Provides Substantive Funds Beyond Routine Membership</th>
<th>Views Relationship as Strategic</th>
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<td><strong>Europe (Cont.)</strong></td>
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<tr>
<td>Sweden – Swedisol, SIS Swedish Standards Institute</td>
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<td>The International Glass fibre Reinforced Concrete Association</td>
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<tr>
<td>The International Union of Laboratories and Experts in Construction Materials, Systems and Structures</td>
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Independent Assurance Statement

To Owens Corning’s Stakeholders

SCS Global Services (SCS) has been engaged by Owens Corning to provide independent assurance for the Owens Corning 2022 Sustainability Report as published on the Owens Corning website. SCS conducted a moderate level of assurance on the report in adherence to AccountAbility’s Principles of Inclusivity, Materiality, Responsiveness, and Impact. In addition, SCS conducted assurance on the environmental, economic and social key performance indicators provided in the Owens Corning 2022 Sustainability Report.

Objective

The objective of this assurance engagement was to provide an independent opinion on Owens Corning’s reporting of qualitative and quantitative claims and their supporting management systems to assure stakeholders of the overall credibility of the reported information within the scope.

Scope

The scope of Owens Corning’s 2022 Sustainability Report and this assurance engagement includes all of Owens Corning’s sites and activities under their operational control globally. A Type 2 assurance engagement was performed on Owens Corning’s performance against AccountAbility’s AA1000 Principles (2018) to a moderate level (also known as limited level). Energy use, Scope 1 and 2 greenhouse gas emissions, the environmental disclosure KPIs in Scope 3 greenhouse gas emission categories 1, 3, 4, 6, 7, 9, and 12, and the social and economic disclosure topics of employee engagement (% responding and % actively engaged), types and amounts of philanthropic activities and contributions, and gender pay indicators have all been assured to a high level (also known as Reasonable level). All other data within the Report, including but not limited to, performance data and progress towards 2030 goals were assured to a moderate level (limited level). In addition, SCS evaluated the Report’s adherence to Global Reporting Initiative’s Consolidated Set of GRI Sustainably Reporting Standards (2022).

Standards and Criteria

SCS performed the assurance of the Owens Corning’s 2022 Sustainability Report against the AA1000 Assurance Standard AA1000AS v3 (2020). Specific performance data were assessed utilizing internationally recognized standards, frameworks, conventions or guidelines which included, but are not limited to the following:

- AA1000 Accountability Principles (2018)
- World Resources Institute’s Greenhouse Gas Protocol: A Corporate Accounting and Reporting Standard (Revised Edition), March 2004 along with Scope 2 and Scope 3 Guidance
- ISO 14064-3:2006 Specification with guidance for the validation and verification of GHG assertions.
- Consolidated Set of GRI Sustainability Reporting Standards 2022
Responsibilities

The management of Owens Corning had sole responsibility for the preparation and content of Corporate Social Responsibility Report.

SCS Global Services responsibilities were to:
- Provide moderate level assurance as per AA1000 over the accuracy, reliability and objectivity of the information contained within the Report;
- Form an independent conclusion based on the assurance procedures performed and evidence obtained; and
- Report our detailed conclusions and recommendations in an internal report to Owens Corning management.

Methodology

SCS' Assurance Team undertook the following activities to render our opinion:

- Reviewed management systems and governance documents developed as a part of Owens Corning’s sustainability management system, which includes their identification of material topics, stakeholder engagement, mechanisms for stakeholder responsiveness, evaluation of impact and calculation methods;
- Reviewed and analyzed a sample of primary and secondary performance data collected at the sites and aggregated at the corporate level to identify any material misstatements or calculation errors;
- Conducted interviews with key management and staff and requested procedures and data from a sample of Owens Corning’s regions and sites; and
- Reviewed the Sustainability Report for material misstatements and its alignment to the requirements of the Global Reporting Initiative (GRI) Standards.

Limitations

SCS conducted interviews with management and staff, reviewed governance documents and data, and performed limited recalculations on aggregate and site-specific data through risk-based sampling. These processes enabled SCS to provide a moderate level of assurance on Owens Corning’s 2022 Sustainability Report, which reduces the risk of our conclusions being in error but does not reduce the risk to zero.

The assurance did not cover financial data such as balance sheet, the income statement, and the cash flow statement, technical descriptions of buildings, equipment and production processes, or other information not related to sustainability or already supported by existing documents, such as third-party audits or certifications.

Adherence to the AA1000 Principles

Based on the methodology and activities performed we have found that Owens Corning’s 2022 Sustainability Report and specified key performance indicators are in adherence to AA1000 Assurance Standard V3 (2020) and AA1000 Accountability Principles (2018). A summary of our conclusions and evidence follows:
**Inclusivity:**

Owens Corning continues to engage with a wide range of key stakeholders, including investors, customers, employees, suppliers, facilities, non-government agencies and community partners on a regular basis and in various ways. As an example, in 2022, Owens Corning engaged with customers to develop transparent product environmental data and develop initiatives for waste reduction efforts from Owens Corning products. Internally, Owens Corning conducted sustainability forums both in person and virtual, employee engagement surveys, and affinity group meetings to discuss sustainability topics. Suppliers were engaged via summits and surveys to develop initiatives for Scope 3 emissions reporting, circular economy and waste diversion opportunities, and assure understanding of Owens Corning inclusion and diversity goals throughout the supply chain. Owens Corning engaged with communities at the facility level via local regular community engagement platforms consisting of members representing local neighborhoods and community groups, who meet with plant representatives and other interested guests. Owens Corning also piloted environmental justice assessments at several plants to identify potential impacts on communities and to develop Community Assessment Plans in those areas. Based on this review, SCS concludes that Owens Corning has continued to engage and seek stakeholder participation on a regular basis.

**Materiality:**

Owens Corning conducts a full materiality assessment on a five-year basis, the last one was conducted for 2019 reporting. During the 2019 Materiality assessment SCS observed that Owens Corning followed a clear process for identifying business risks and material topics. The result of this assessment identified material topics based on stakeholder preferences and impact. In 2022, Owens Corning made four acquisitions that complement or expand their existing business ventures. As such, Owens Corning conducted a refresh of the 2019 Materiality Assessment to assess the continued relevance of the existing applicability of Material Topics for the company as a whole and broken out by region. The materiality refresh was informed by engagement with stakeholders, peer performance, emerging issues, trends, risk, and financial considerations. Based on this review, SCS confirmed that the materiality assessment refresh conducted by Owens Corning in 2022 continues to be relevant and is appropriate to Owens Corning reporting in 2022.

**Responsiveness:**

SCS confirmed Owens Corning remained responsive to issues identified by its stakeholders through the development of policies, procedures, goals, objectives, and key performance indicators reported in its annual sustainability report. In response to investors and customers, in 2022, Owens Corning released formal linkages between executive compensation and ESG performance. Other mechanisms included help lines and email addresses for providing stakeholder assistance and collecting and responding to grievances in violation of the Business Code of Conduct. Various Owens Corning competent staff were assigned to respond to stakeholder needs and elevate serious matters to management. Owens Corning also communicated with employees on a variety of sustainability issues through team meetings, an employee engagement survey, email communication, noticeboards, and the corporate intranet. In response to plant specific needs and to take further steps to operationalize sustainability, in 2022, Owens Corning developed a Power BI dashboard with capabilities to help plants identify their specific environmental sustainability goals with the intent of creating shorter term business and/or plant level goals and to develop strategies to reach Owens Corning’s 2030 corporate goals.
Impact:

Owens Corning has established processes for identifying monitoring, measuring, evaluating, and managing their most material impacts. In this reporting year, Owens Corning identified short, medium, and long term sustainability targets to address those impacts. The company also considered its material environmental impacts by measuring and setting goals for reducing energy consumption, greenhouse gas emissions, water withdrawal, waste generation and social impacts. In 2022, new impacts for biodiversity, energy efficiency, energy renewables, and waste were identified. Owens Corning used consultants with subject matter expertise to help identify and understand existing and potential future impacts related to emerging regulatory requirements and evolving external Corporate sustainability reporting expectations. Owens Corning also assessed the potential impacts of the new four acquisitions as noted in their materiality refresh section above. Based on our observations, we conclude Owens Corning continues to meet the principle of Impact.

Conclusions

SCS has assured Owens Corning’s 2022 Sustainability Report to an overall moderate level of assurance (otherwise known as limited level). The reporting period covered is January 1, 2022 to December 31, 2022. Based on the methodology and activities performed within the scope of this assessment, nothing has come to our attention to suggest:

- Owens Corning’s reporting of 2022 Scope 3 greenhouse gas emissions (5, 8, 11, 13, 14, 15 & 16), water withdrawal and discharge, waste data, air emissions, environmental, social, and economic key performance indicators, and progress towards 2030 sustainability goals are not materially correct;

- The 2022 Report does not adhere to the principles of Inclusivity, Materiality, Responsiveness, and Impact in its operations as per the AA 1000 Accountability Principles (2018);

- The underlying management systems, governance documents, data collection methods, and KPI calculations are not appropriate for the reported information or have material errors; and

- Owens Corning’s Report does not adhere with the Consolidated Set of GRI Sustainability Reporting Standards (2022).

In addition to above, SCS has assured to a high level of assurance (otherwise known as Reasonable assurance) the following emissions and environmental, social, and economic KPI reported information as materially accurate, free from material misstatement and can be considered reliable:

- Greenhouse Gas emissions for Scope 1, 2, and Scope 3 (categories 1, 3, 4, 6, 7, 9, and 12);

- Energy use; and

- The KPIs of Employee engagement (% responding and % actively engaged), Gender Pay and Types and amounts of philanthropic contributions.
Observations & Recommendations

SCS found that HCFC and HFO emissions were included in 2022 Scope 1 emissions as they have been in prior years. These emissions are not covered by the Kyoto Protocol GHG emissions and the WRI Greenhouse Gas Protocol states that these emissions should be reported as “Optional Emissions” outside of Scope 1 reporting. It is therefore noted that the Scope 1 emissions reported herein include current and historical HCFC and HFO emissions back to the base year instead of being reported separately as “Optional Emissions” under WRI requirements.

SCS recommends that Owens Corning continue improving its internal data collection and reporting across manual data entry metrics with a focus on refining waste data across individual waste types.

Independence, Impartiality and Competence

SCS Global Services complies with independence, impartiality, quality control, and competency requirements founded on fundamental principles of integrity, objectivity, professional competence and due care, confidentiality, and professional behavior. SCS Global Services assurance team has the relevant professional and technical competencies and experience to conduct an assurance to the AA1000 Assurance standard. The assessment team qualifications are available upon request.

SCS Global Services maintains a comprehensive system of quality control including documented policies and procedures regarding compliance with ethical requirements, professional standards, and applicable legal and regulatory requirements.

SCS Global Services is an independent and internationally accredited conformance assessment body. SCS Global Services conducts a limited number of independent assessments and product certifications for Owens Corning annually which do not compromise our independence or impartiality. In conducting our engagement, SCS Global Services confirms the company satisfies the criteria for assurance providers as set out in the AA1000 Assurance Standard v3 (2020) to carry out the assurance engagement.

Declaration

Nicole Muñoz
Vice President – Environmental Certification Division

SCS Global Services
Emeryville, California
May 10, 2023
At Owens Corning, sustainability is embedded in everything we do, from the products we make to the actions we drive within the communities where we operate. The commitments we have made and the progress we have achieved are fundamental to our business.

As we assess our climate change risks and opportunities, we monitor a range of factors that may impact our operations or our planning. These include the physical risks of climate change and other climate-related variations, as well as transition risks such as changing environmental regulations, new technologies, and changes in the overall marketplace.

We are also committed to managing the market and reputational risks that arise from the impacts of climate change. This commitment informs our goals and our approach to reducing greenhouse gas emissions through both our products and our processes.

**Governance**

**Board Oversight of Climate-Related Risks and Opportunities**

Oversight, guidance, and direction on sustainability issues — including our 2030 sustainability goals — is provided by the board of directors, who oversee management’s execution of our ESG strategy. This includes all elements of our 2030 sustainability goals, such as the reduction of greenhouse gas (GHG) emissions, efficient energy use in our operations, and the sourcing of 100% renewable electricity. Our board reviews our sustainability program at least annually, and they receive periodic updates on relevant environmental impacts, health and safety metrics and activities, and all our long-term sustainability goals.

Our board and committees also have oversight of risk related to environmental, health, and safety (EHS) impacts — including climate change — and the company’s plans to mitigate them. The board has been instrumental in our sustainability and climate-related processes, including their 2019 endorsement and guidance related to Owens Corning’s 2030 goals. More recently, the board made the decision to source 100% renewable electricity at our manufacturing location in Trzemeszno, Poland, helping further expand our renewable energy strategies in Europe.

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Our Directors’ Code of Conduct defines sustainability broadly, to include the concepts of personal safety, environmental compliance, product stewardship, and the environmental and social impact of our products and our global operations. Directors are expected to provide oversight, guidance, and direction on sustainability issues and opportunities that have the potential to impact on our reputation and long-term viability. They are assessed for their competence based on their experience with issues related to ESG and sustainability, including climate change. In addition, according to its charter, the audit committee is responsible for reviewing the impact of significant regulatory changes, proposed regulatory changes, and developments in accounting or reporting, including those related to issues of sustainability.

**Managerial Responsibility for Climate Risks and Opportunities**

Along with our board of directors, our CEO and chief sustainability officer (CSO) have oversight on our progress toward our climate and sustainability goals, and our CEO’s compensation is tied to progress toward our sustainability goals (see page 166 for more information). The CSO reports directly to the CEO and is responsible for our compliance and with legal and company requirements related to EHS and sustainability. In addition, Owens Corning employs approximately 50 people who report to the CSO in our sustainability organization. This team is accountable for all aspects of sustainability, including circular economy, product stewardship, supply chain sustainability, sustainability reporting and analytics, operations sustainability, medical, and EHS.

Furthermore, climate-related issues are addressed through our risk management process and included in our risk registers, which are developed by the business and legal departments and from the plant level up. Our risk committee is responsible for overseeing and monitoring our risk assessment and mitigation actions. Safety and environmental concerns, including climate-related concerns, are part of the core risk register, which increases the extent to which sustainability issues are embedded into the enterprise-wide risk process. The risk committee reports to the executive committee, and it is specifically sponsored by both the chief financial officer and general counsel, who are themselves members of the executive committee.

**Strategy**

**Identification of Climate-Related Risks**

Owens Corning looks at all risks, including climate-related risks, through essentially the same process. At the asset level, our business units create business-specific risk registers which are used in their strategic and operational planning processes. In creating these registers, the business units identify internal and external factors that could pose threats and opportunities to their business. They evaluate the potential impact and likelihood, and then establish management plans to mitigate the risk. Each risk is assessed by subject matter experts who consider relevant indicators in determining impact. These indicators vary depending on the aspects that are relevant for each risk. Potential quantifiable indicators that could factor into an individual risk’s impact classification include potential impact on revenue, potential number of sites disrupted, applicable fines, litigation outcome, medical treatment cost, and others.
TCFD
CLIMATE RISK & OPPORTUNITIES

Of the risks that we monitor, Owens Corning has established three levels for value impact. The lowest level risks are those where the company can absorb the financial impact, and the reputational impact is relatively non-existent. The next level is moderate financial impact, with a potential to damage our reputation. The highest level is significant financial impact and or reputational damage, with the potential to be catastrophic to the organization. All three levels of risks have been determined important to monitor, but those in the moderate and significant levels are defined as having substantive financial impact.

Risk horizons are defined as follows:
- Short-term (1-3 years)
- Medium-term (3-6 years)
- Long-term (over 6 years)

Owens Corning has recognized numerous risks specifically related to climate change, and we have strategies in place to mitigate them. Those risks are outlined below.

Risk: Increased Severity and Frequency of Extreme Weather Events

Owens Corning has made substantial investments in our manufacturing facilities, and our products are produced at a limited number of facilities. These facilities could be materially damaged by extreme weather events such as floods, tornados, and hurricanes; by natural disasters such as earthquakes; or by sabotage.

Having experienced flooding at plants in New Jersey, Texas, and India, Owens Corning recognizes the risk of uninsured losses and liabilities, as well as disruptions in production capacity. Natural disasters and extreme weather events also pose a significant threat to the safety of our employees, contractors, and customers. We engage with our third-party loss prevention engineering firm to equip our locations to minimize losses and best survive weather-related incidents.

The effects of climate change could make these risks more likely. They could also make insuring against these risks less feasible. For example, one Owens Corning facility in the Northeastern U.S. experienced a catastrophic flood in 2012 as a result of a hurricane. The ~190,000 sq. ft. site's proximity to a river system and the Atlantic Ocean has made purchasing flood insurance more challenging, and the insurance capacity available for purchase has been reduced. As such, continuing to purchase flood insurance for this facility has become more challenging and achieving the full insurance capacity has increased in cost. Combined with a potential increase in likelihood of this risk due to the impact of climate change, this situation is even more important to mitigate appropriately. Other natural disasters could also impact Owens Corning locations in a similar manner.

Owens Corning mitigates this risk through the purchase of insurance, loss prevention engineering, and strategic location evaluation, as well as processes such as strategic sourcing and supply chain planning.

Risk: Enhanced Emissions-Reporting Obligations

Owens Corning is subject to or has chosen to voluntarily participate in Emissions Trading Schemes (ETS) around the world, such as the Alberta Technology Innovation and Emissions Reduction, EU Emissions Trading System, California's Cap-and-Trade system, the Canadian Federal Output-Based Pricing System, the Québec Cap-and-Trade system, and South Korea's Emissions Trading Scheme. Expansions to these schemes could impact us by reducing our carbon allowances, thus increasing our operating costs in those countries.

With the further reductions in allowances through Phase 4 of the European Union ETS, for example, we forecast that our allowances will be depleted after 2021, which will require us to begin purchasing credits.

Phase 4 applies to the period 2021-2030. Volatility in carbon market pricing creates additional risk. Our course of action in managing these risks involves: interacting with the commission regarding the implementation of the EU Green Deal and Fit-for-55 package; pursuit of R&D initiatives involving a change in material composition or in manufacturing processes to enable emissions reductions; and implementation of energy and GHG reduction projects.

We also anticipate transitional risks as climate-change legislation and other environmental mandates lead to increases in energy prices. This can have an adverse effect on our operations, as it can represent a cost increase that we may not be able to pass along to the customer.

Owens Corning has strategies in place to mitigate these risks. Chief among them is our commitment to the circular economy model, in which we work to avoid the use of virgin raw materials whenever possible, manufacture products to deliver the least negative environmental impact, and ensure that materials used in our products and packaging remain in the economy indefinitely.

We had eleven plants in 2021 that were impacted by the EU ETS: plants in L’Ardoise, France; Chambéry, France; Besana, Italy; and Apeldoorn, Netherlands; and Insulation plants in Tessenderlo, Belgium; Klášterec, Czech Republic; Hällekis, Sweden; Hässleholm, Sweden; Parainen, Finland; Vilnius, Lithuania; and Trzemeszno, Poland. Both composite glass and insulation production create GHG emissions. In 2021, 25% of our Scope 1 emissions fell under emissions limiting regulations.
A primary way we have been managing this risk is by emission reduction projects. In 2021, we implemented 29 projects, generating energy savings of over 34,000 MWh and reducing greenhouse gas emissions by more than 8,000 MT per year.

**Identification of Climate-Based Opportunities**

In addition to the risks outlined above, conditions related to climate change can present opportunities for our business. While these opportunities offer some potential for growth, Owens Corning remains committed to our sustainability goals. Opportunities are addressed through our long-range planning process.

**Opportunity: Increased Demand for Roofing Materials**

More aggressive energy efficiency building codes and regulations can help mitigate climate risk and drive increased sale and use of Owens Corning products, including insulation and other energy-saving products and systems. We are working with the U.S. government to update energy codes update energy codes through three federal mortgage offerings: the U.S. Federal Housing Authority (FHA), the U.S. Department of Veterans Affairs (VA), and the U.S. Department of Agriculture (USDA). Each federal mortgage offering has minimum requirements for building energy efficiency, including energy codes.

Owens Corning has been collaborating with trade associations and nongovernmental organizations primarily through the North American Insulation Manufacturers’ Association (NAIMA), to ask the Biden administration to update energy code standards to the 2021 IECC for FHA, VA, and USDA mortgages. Updating these codes would create an incentive for builders to specify more energy-efficient insulation products in order to qualify for FHA, VA, and USDA loans. Even in states with older energy codes, the potential for federal loans would increase builders’ incentives to exceed state code standards.

**Opportunity: Increased Demand for Mineral Wool Products**

Demand for products in our roofing business is generally driven by residential repair and remodeling activity, as well as new residential construction. That demand could increase, as extreme weather activity due to climate change leads to increases in storm-related roof damage. The greatest potential for increased demand is in the U.S., where the majority of our Roofing business is located. As seasonal storms such as hailstorms and hurricanes affect the U.S., especially in the South, we are in a position to increase sales of our roofing products.

All our architectural laminate shingles are designed to protect against high winds seen in these conditions. Our TruDefinition® Duration FLEX®, TruDefinition® Duration STORM®, and TruDefinition® WeatherGuard® HP shingles also meet the industry's highest classification for impact resistance, and they are preferred products in many hail-prone regions. With elevated storm activity, our entire shingle product line could see increased revenues.

**Impact of Climate-Related Risks and Opportunities on Our Strategies**

Owens Corning has developed a range of strategies to address the continued rise of climate-related risks and opportunities. These strategies have had a major impact of the way we conduct our business.

### Products and Services

Owens Corning is addressing the potential risks associated with increased regulations on energy efficiency and emissions standards by making dramatic improvements to our product lines across all our businesses. In addition, we are continuously working to develop products that reduce emissions and comply with climate-related regulations. In recent years, this has led to a number of innovations, including the following:

- **PINK Next Gen™ Fiberglas™**, which is certified made with 100% renewable electricity through the use of power purchase agreements and is UL GREENGUARD GOLD certified for low volatile organic compounds

- A new blowing agent formulation used in FOAMULAR® NGX™, which offers significantly lower global warming potential and reduced Scope 1 GHG emissions in its production. This innovation addresses a short-term climate transition risk by helping Owens Corning stay ahead of regulations. We are currently converting our legacy blowing agent to this new formulation, with more conversion activity occurring in the short term. NGX was developed to comply with expected and actual blowing agent regulation, such as a phaseout in Canada that went into effect in 2021, and in several US states (CA, NY, NJ, MA, WA, VT, MD, and CO) that have enacted similar regulations to Canada, managing the transition risk. The investment in developing a product that meets and exceeds the stringent regulations going into effect reflects Owens Corning’s continued commitment to offering building materials that merge the highest levels of performance and our corporate sustainability goals.

- PAROC® Natura Lana stone wool insulation uses low-carbon melting technology, renewable energy, recycled waste materials, and new technologies to minimize the amount of CO₂ emitted during the manufacturing process. This product line has been certified as carbon neutral by a third party.
Cool Roof shingles deliver energy savings for customers, and many selections in this line meet ENERGY STAR requirements for solar reflectance. Owens Corning also offers a wide array of shingle products that meet or exceed an aged Solar Reflectance Index of 20, the minimum required for the Green Building Standards Code of Los Angeles County and Los Angeles City Cool Roofs Ordinance.

Supply Chain

Owens Corning is working to increase sustainability across our supply chain. One way we do this is by prioritizing local suppliers, as this helps ensure greater efficiency and minimize the impact of storms and natural disasters. Another way we manage climate-related risks throughout our value chain is through our regional shingle strategy.

This strategy was first established in 2005, following a surge in demand for replacement shingles in the aftermath of Hurricane Katrina. It was important that shingle colors matched, regardless of the plant where they were manufactured. To achieve this, Owens Corning has implemented state-of-the-art technology and stringent testing requirements to provide shingles that are completely interchangeable, so that if shingles from multiple plants are used on the same roof, colors will match as intended.

We also address climate-related risks and opportunities in our 2030 sustainability goals. Through our Sustainability Materiality Assessment, we identified both responsible sourcing and combating climate change as material topics. These two topics intersect in our goal to reduce Scope 3 emissions from our supply chain by 30%, compared to the base year of 2018.

Investment in R&D

As we respond to the climate-related risks and opportunities that have been identified through our ERM process, we have made substantial investments in research and development. In response to these risks and opportunities, we intend to produce new processes and products through the short term and the long term as the world continues to prioritize climate action. The risk management process often leads to mitigation needs and identified business opportunities; therefore, it has had a moderate impact on how funds are invested in R&D.

For example, the investment in R&D for WindStrand® was driven in part by climate change-related risk and opportunity evaluations. Windstrand® features a powerful combination of optimized design and reliability for long, light blades. This product allows blades to operate at low operating costs.

In addition to the Cool Roof collection and FOAMULAR® NGX™ discussed above, we have made further innovations such WindStrand® 4000, Ultrablade® 2, and Ultraspar™ 2. These three high-performance materials help wind blade manufacturers develop longer, stiffer, stronger blades, which in turn helps make wind energy more cost-effective.

Operations

Identified climate related risks and opportunities have had a significant impact for Owens Corning. To help meet our 2030 Science-Based Target for a 50% Scope 1 and Scope 2 GHG reduction, which was developed in response to climate risks for our company, we have made major investments in renewable energy. In 2015, Owens Corning signed power purchase agreements for renewable electricity totaling 250 megawatts. In Q4 of 2016, two wind farms came online and are now providing renewable energy into the grid, impacting emissions and renewable energy in 2021. Furthermore, in 2021, we entered into two wind VPPAs, one in Finland and one in Sweden, which will bring in 43 MW and 48 MW of renewable electricity capacity, respectively. The VPPA in Sweden reached its commercial date of operation in 2021, while the VPPA in Finland reached its commercial date of operation in January 2022.

Owens Corning continues to look for opportunities to expand our renewable portfolio in the short term, reviewing several on-site and off-site programs as we work towards our goal of 100% renewable electricity by 2030, and a 50% reduction in Scope 1 and Scope 2 emissions in the same timeframe. In addition to growing our renewable electricity portfolio, in support of our goal of sourcing 100% renewable electricity by 2030, we are also changing our operations strategy in response to climate risks and opportunities through the electrification of assets. One example was the 2019 construction of a new energy-efficient Electric Arc Furnace (EAF) in Trzemeszno, Poland. We expect to reduce our CO₂ emission by 75-80% with this line compared to a traditional coke-fired furnace line. Moreover, the new line’s EAF will reduce carbon intensity by roughly 10% for all Paroc Insulation in Europe. The new EAF is the third stone wool electric furnace for Owens Corning in Europe and the second on the Owens Corning site in Poland. In 2021, we entered into VPPAs to source renewable electricity for the EAF, thereby avoiding grid emissions associated with electricity. As we plan for the further development of the EU ETS in the long-term, we are proactively managing this risk with financial planning and operations changes like the electrification of the Trzemeszno furnace.

Impact of Climate-Related Risks and Opportunities on Our Financial Planning

Revenues

Owens Corning has incorporated climate risks and opportunities into our financial planning process. Our new
product developments are factored into our forecasting, similar to how climate-related products such as EcoTouch® PINK® Insulation were when they were in development. Our certified reduced embodied-carbon products, which were introduced in 2017 and made up 27% of 2022 revenues, have also been included in future revenue projections at a forecasted rate of growth. These risks and opportunities have a moderate impact on revenues in the financial planning process. We also monitor products that avoid emissions in the value chain, such as fiberglass products, ENERGY STAR shingles, and several composites products. These products accounted for 63% of revenues in 2022.

**Direct Costs**

Owens Corning incorporates the impact of the identified risks into its direct operating costs for financial planning models based on a number of factors including the likelihood, timeframe, and magnitude of the financial impact of the risk or opportunity. For example, in the event of reduced production capacity due to climate-related increases in storm activity and severity, Owens Corning would potentially see considerable increased (direct) operating costs in the affected regions. These increases would be due to cleanup costs, as well as alternate transportation costs, increased maintenance, increased sourcing costs due to supply chain strain, and likely increased production costs as the repaired line is brought back up to production. This estimated impact would be included in the financial planning process in various scenarios and analyses. Damage to our Kearny, New Jersey, U.S. roofing plant during Hurricane Sandy provided an example of how to adjust our planning estimates for future potential severe weather events and their impact on operating costs.

**Indirect Costs**

Climate-related risks such as extreme weather events and their increased likelihood have influenced indirect costs, including insurance. For example, when one Owens Corning facility experienced a catastrophic flood, it became more difficult to purchase flood insurance. This led to increased premiums as we sought to achieve coverage. In addition, the available protection capacity was entirely altered due to the increased likelihood of flooding and other climate-related weather risks. This example has influenced indirect cost financial planning at any Owens Corning site with similar risks for natural disasters.

**Capital Expenditures**

Capital expenditure is influenced by climate risks and opportunities. One particular example is a regulatory transition risk regarding our blowing agent blend, which is being phased out in the short term as climate and environmental regulations become more stringent. A few years ago, as the need for blowing agent changes was identified in our risk and opportunities analyses, we included new equipment to use a lower-GWP foam blowing agent in our planning process. The first such product, FOAMULAR® NGX™, was announced in mid-2020, and is now available in Canada and certain U.S. states. Our response to identified climate-related risks and opportunities such as these has had a substantial impact on our financial planning of capital allocation.

**Acquisitions and Divestments**

Identified climate risks and opportunities have had a moderate impact on our financial planning for acquisitions and divestments. Over the last several years, acquisitions have been an important part of our growth strategy. We look for acquisition opportunities with businesses that meet specific criteria: they must provide stable and attractive margins and strong synergies, address our target growth areas, and meet our strategic objectives. We evaluate our acquisition candidates through multiple lenses, including sustainability. We ask whether this business would be better with us as its owner. As sustainability guides our operations, we want to be confident that we can improve EHS performance, employee experience, customer experience, and community impact of the companies that join us. We also ask whether we can bring a new perspective on safety and health, improve energy efficiency, and lower waste in operations.

Owens Corning has purchased several companies in the last three years. The acquired businesses successfully expand the capabilities and global reach of our three business segments (Composites, Insulation, and Roofing). The identified climate-related opportunities, including more aggressive building codes, increased building materials demand due to potentially increased storm activity and severity, and improved demand for existing products due to our reputation for sustainable products were all factors in our acquisitions to expand our product line. These opportunities continue to be involved in our financial planning process as we continue to evaluate and analyze additional acquisition targets for the medium and long term.

**Assets and Liabilities**

Climate risks and opportunities have had a moderate impact on our financial planning for assets and liabilities, primarily through our acquisitions. Owens Corning has purchased several companies in the last few years, including vliepa, WearDeck, Natural Polymers, Fiberteq. We also entered into a joint venture along with Pultron, known as Owens Corning Reinforcement Solutions LLC. With these acquisitions, Owens Corning reported $10.752 billion in total assets in 2022. These companies were determined to be important to expand our portfolio of energy-saving and performance-driven products, an opportunity we consider in the long-term horizon. These opportunities continue to be involved in our financial planning process as we continue to evaluate and analyze additional acquisition targets.
TCFD
CLIMATE RISK & OPPORTUNITIES

Appendix F

Resilience of Owens Corning Strategy in Climate-Related Scenarios

Owens Corning has developed resilient strategies related to different climate-related scenarios, including Science-Based Targets.

Our actions to reduce GHG emissions have always been informed by the latest science-based methodologies. Owens Corning has set targets aligned with the latest findings from the Intergovernmental Panel on Climate Change (IPCC). To avoid the worst impacts of climate change, the IPCC urges that temperature rise should be held below 1.5° C. As we seek to reduce our Scope 1 and Scope 2 greenhouse gas emissions by 50% over the next ten years, we will use this metric — representing the latest in climate science — as our guide.

Owens Corning has assessed potential risks associated with climate change, giving us a full understanding of the many ways in which climate-related risks can impact operations across our entire value chain. As weather conditions shift, severe storms can have a significant impact on the markets for residential and commercial construction, repair, and improvement, as well as a material adverse impact on our results of operations.

Among our customers, severe weather conditions could slow or limit residential or commercial construction activity, which in turn could adversely affect demand for our products. Within our own operations, extreme weather can lead to disruptions in our manufacturing capacities, as damages to our facilities may occur. In addition, as weather-based disruptions become more common, we anticipate potential difficulties in obtaining affordable insurance.

Assessing Climate Scenarios in Partnership with The Ohio State University

In 2020, Owens Corning began working with The Ohio State University (OSU) to evaluate the resiliency of current strategies against a range of climate-related scenarios and time horizons. The scenario analyses focused on Shared Socioeconomic Pathways (SSPs) for the scenario analysis: SSP1-2.6, SSP2-4.5, and SSP5-8.5. The use of these SSP models aligns our analyses with the most recent 2021 IPCC sixth assessment report (AR6). These initial analyses referenced time horizons of the current period, 2036, and 2051.

The initial scenario analysis work focused on two areas: physical climate risks posed to our company locations, and potential impacts of climate change on demand for our roofing products influenced by severe weather activity.

In the first project, OSU conducted a climate scenario analysis for physical climate risk across facilities over the same emission pathways and time horizons. The findings will be incorporated into our risk assessment for our plants. Variables assessed included several factors, including winds, cyclones and severe weather, flood risk, drought risk, and maximum temperature. Each of these factors can change for each facility in response to different climate scenarios, and awareness of these potential changes at the site level is a key step to ensuring preparedness at the enterprise level. We are currently evaluating more detailed analysis for specific facilities.

For the second scenario analysis, OSU was able to model the potential changes to U.S. roofing product demand by region for each emission pathway and time horizon. This analysis will help us evaluate how drivers of roofing shingle demand potentially change as variables like wind, tropical cyclones, and hail fluctuate in different climate scenarios. Outcomes of this analysis will provide Owens Corning the ability to ensure our production capability can adapt to climate change and ensure we successfully serve our markets as their demand for roofing products changes due to climate change.

Risk Management

Owens Corning’s management of climate risk is integrated into a multidisciplinary companywide enterprise risk management (ERM) process, which is led by our risk committee. The risk committee meets with functional and business leaders throughout the organization to discuss identified risks, including climate risks, and manage corresponding action plans. Risks are considered by the committee for all ranges of time horizon, and in all aspects of the value chain.

Risk Registers

As discussed in the Strategy section on page 316, Owens Corning uses risk registers to identify and manage risks. Risks are retained (risk exposure is accepted without further mitigation), reduced/transferred (risk exposure is reduced, transferred, or consequences are reduced) or avoided (risk exposure eliminated entirely, e.g., through ceasing a business).

The risk committee considers significant risk to the corporation through the following process:

1. **Review the Owens Corning Risk Register substantiated by business and functional reviews.** Risks are prioritized based on their placement in the risk register. The Y-axis (“Value”) represents the potential financial impact, while the X-axis (“Likelihood”) represents the probability of occurrence. Color coding (for risk acceptability) and different shapes (for trending information) offer a fuller understanding of the potential risks.

We also include the concept of risk velocity in our conceptualization of risk, describing the potential rate at which a risk could impact our businesses. While risk velocity is not depicted on the risk register in an infographic manner, the concept is described in conjunction with the overall register narrative.
Managing Climate-Related Risks and Opportunities

We have a variety of processes for identifying and managing opportunities within the businesses, marketing, R&D, and across the company, including climate-related opportunities. As an example, tech scouting is a business strategy aligned with our corporate innovation team, and it is designed to continuously fuel Owens Corning business pipelines with technology-based opportunities that enable growth or mitigate threats. Our tech scouting team is integrated with each business unit, systematically finding and assessing business opportunities that match our needs and strategy, and effectively sourcing the most suitable technologies and partners. Any new products developed must go through our stringent product stewardship process, and each product is evaluated through our Ecodesign Strategy Wheel. Recycling, in the context of the circular economy, will be a key focus of the tech scouting team.

Some case studies of how we have followed our processes for managing climate-related risks and opportunities:

■ Transitional Risk
  - Broad and gradual tightening of limits on emissions by federal and state governments could impact Owens Corning by disrupting our use of specific raw materials which in turn would disrupt our production capacity for products using those materials. One example specific to Owens Corning involves phasing out certain blowing agents used in our XPS foam plants in North America and Asia. As this occurs, we have been required to make certain capital investments at our plants to use alternative blowing agents. Because we believe the likelihood of this identified risk is high in the long term, we have completed development and certification of new foam blowing agent blends with lower GWP that could be used with our existing equipment, and we have also begun capital upgrades needed to run our lines with these lower GWP blowing agent blends. As a result, we can manage this risk into the future, and are doing so already, as with the 2021 release of FOAMULAR® NGX™ for Canada and certain U.S. states.

■ Physical Opportunity
  - Demand for products in our roofing business is generally driven by residential repair, remodeling activity, and new residential construction. As the effects of climate change are felt in the increased frequency and severity of storms, Owens Corning as a building materials company may see an increased demand for our roofing products due to storm related roof damage. Evaluation of climate-related physical risks and opportunities have driven changes and expansion in production and marketing of specific Owens Corning products, like WeatherGuard® and Duration FLEX® shingles, which are rated against high winds and storm activity.

Recognizing Climate Risks and Opportunities Through Building Science

Owens Corning recognizes the importance of sustainability and has embedded building science professionals into the business. We understand the impacts of our products and aim to innovate solutions that provide positive impacts on the building envelope. Our sustainability organization and sales force actively and broadly promote our company’s stand for sustainability and train professionals on how to achieve maximum environmental benefits using our products. The company is a significant user of recycled content, and we strive to reduce the energy usage and GHG emissions from producing our products while tracking avoided emissions from product usage.

Owens Corning Building Science engineers the complex, interconnected systems that make buildings and homes comfortable, energy efficient, high performing, durable, sustainable, and affordable — that is our material difference. Product innovation, developing products like EcoTouch® "Made with 100% Renewable Electricity and Reduced Embodied Carbon" products, and Cool Roof Collection shingles that reduce energy and emissions, puts us in a position to take advantage of this opportunity.
Metrics & Targets

Reducing Our Emissions in-line with a 1.5-Degree World

The Intergovernmental Panel on Climate Change (IPCC) has established that temperature increases must be held to below 1.5°C above preindustrial levels in order to avoid the worst impacts of climate change. By 2030, our goal is a 50% reduction in absolute Scope 1 and Scope 2 market-based GHG emissions from the base year of 2018. We also have a goal for 2030 to reduce absolute Scope 3 emissions by 30%, compared to the base year of 2018.

Our 2030 Scope 1 and Scope 2 goals have been approved by the Science Based Targets initiative (SBTi) as meeting these standards. Concurrently, the SBTi has approved our Scope 3 GHG reduction goal as being aligned with the IPCC’s pathway to achieve well below 2.0° C temperature increases.

In 2022, our absolute Scope 1 and Scope 2 market-based emissions were 22% lower than our 2018 base year. Progress toward our GHG emissions goals is made possible through several key programs, including the following:

- Implementation of energy-efficiency initiatives across our enterprise
- Evaluation of combined heat and power
- Heat recovery
- Expansion of renewable sources to replace grid energy
- Blowing agent conversion

It should also be noted that changes in production output could cause increases or decreases in our emissions, given the shifts in the use of raw materials and energy. For example, in 2022 Owens Corning outsourced production of a foam product in Asia Pacific, resulting in a short-term decrease in Scope 1 emissions. Since we intend to restart production of the foam product in 2023, we anticipate these emissions returning to our Scope 1 values.

In 2022, our Scope 3 emissions were 9% higher than our base year of 2018. Driving to make progress towards this goal will require collaboration across our supply chain.

Linking Executive Compensation to Climate-Related Performance

Monetary rewards for the CEO and the corporate executive team are based in part on progress to a selection of our 2030 goals, one of which is progress towards meeting our 2030 science-based target to cut absolute Scope 1 and Scope 2 emissions by 50%. ESG goals progress including GHG reductions are formally a part of our executive compensation program, and further details can be found on pages 42-43 of our 2023 Proxy Statement. Current ESG goals influencing executive compensation include GHG reduction, Waste to landfill reduction, and progress made towards our inclusion and diversity targets. Per page 42 of the Proxy, this applies to our CEO and Chairman of the Board, and our other named executive officers, which include our CFO, Chief Growth Officer, and the Presidents of our composites and insulation businesses.

Understanding the Cost of Emissions

Owens Corning has established an internal price for carbon emissions — a best practice used by many companies. Doing so helps us make smart decisions about our GHG emissions reduction initiatives, as it enables us to frame challenges and opportunities in monetary terms, which are often more broadly understood than the concept of tons of emissions.

In implementing an internal carbon price, we consider Scope 1 and Scope 2 emissions — the total impact of our operations and our supply chain. We have internally and externally published reduction goals, which are aligned to drive strategy and action. We do not have an internal carbon tax or carbon charge allocated to our businesses.

Quantifying the cost of carbon emissions with an internal carbon price helps us plan future scenarios and make informed business decisions. Our internal carbon price varies by region and considers a range of potential forecasted costs, ranging from $60 to $150 per metric ton depending on the location. A regional approach to internal carbon pricing allows us to be more accurate as we estimate and evaluate the cost of carbon for capital project planning in regions with varying carbon prices. It also places value on reducing carbon emissions in regions that do not yet have taxes or trading schemes.

By estimating the difference in metric tons of CO₂e emissions produced from one year-end period to the next, then multiplying that amount by $150 per metric ton, we can arrive at the high-end estimate of cost savings of emissions reduction if a carbon tax were implemented. We have also been able to quantify our current total risk in the event of an efficient, economywide carbon tax, and we can see how dramatically we have reduced that risk since 2007, our peak GHG emissions year. This also allows us to value our future forecasted emissions reductions as we work toward our 2030 goals.

Addressing Emerging Climate-Related Risks and Opportunities

Our commitment to sustainability starts with our passion for developing energy-saving products, such as insulation and durable products that significantly reduce energy use and associated emissions. A significant portion of global greenhouse gas emissions come from the combustion of fossil fuels; therefore, energy savings, or avoided energy consumption, are directly tied to a quantifiable amount of avoided emissions. More information about our sustainable product portfolio and approach is included in this report, beginning on page 148.
### Governance
Disclose the organization's governance around climate-related risks and opportunities.

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### Strategy
Disclose the actual and potential impacts of climate-related risks and opportunities on the organization's businesses, strategy, and financial planning where such information is material.

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**Risk Management**

Disclose how the organization identifies, assesses, and manages climate-related risks.

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**Metrics & Targets**

Disclose the metrics and targets used to assess and manage relevant climate-related risks and opportunities where such information is material.

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Owens Corning discloses GHG, energy, water, waste, and air quality targets in their respective chapters in the Operationalizing Sustainability section of the report, along with 2022 performance against those targets.
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# Statement of Use

Owens Corning has reported in accordance with the GRI Standards for the period January 1, 2022 and December 31, 2022.

## GRI 1 used

GRI 1: Foundation 2021

## Applicable GRI Sector Standard(s)

None

## GRI Standard

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Statement of Use: Owens Corning has reported in accordance with the GRI Standards for the period January 1, 2022 and December 31, 2022.

GRI 1 used: GRI 1: Foundation 2021

Applicable GRI Sector Standard(s): None

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<td>About the Report; Appendix E - Assurance Statements</td>
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<td>The senior director and CSO educate the executive committee on all components of the reporting process, including assurance.</td>
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<td>a = 6-7 b = 7, 119 c = 10-K 1-3 &amp; Partnership List; 137 d = 259</td>
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<td>2022 Sustainability Report &amp; 2023 Proxy Statement &amp; 2023 Annual Report, Form 10-K</td>
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<td>Employees</td>
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<td>Appendix B - Workforce Data; Employee Experience</td>
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<td>Employee Experience; Proxy Statement</td>
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<td>b = See comment</td>
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## Material Topics

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## Economic Performance

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<td>a, b = 15-16, 67-68, 133-140, 216-225, CDP 02.3 and 02.4</td>
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<td>Owens Corning provides the SEC with required financial disclosures in Form 10-K: P&amp;L, Balance Sheet, Statement of Cash Flows. Other financial measures are considered confidential to the company.</td>
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## Market Presence

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<td>Ratios of standard entry level wage by gender compared to local minimum wage</td>
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<td>Proportion of senior management hired from the local community</td>
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### Tax

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<td>207-4</td>
<td>Country-by-country reporting</td>
<td>Appendix D - General Disclosures</td>
<td>See note 207-4 a, b, c</td>
<td>Confidentiality constraints</td>
<td>All pertinent tax information of the company is disclosed in its quarterly and annual filings with the SEC. The company considers the information included in the company’s country-by-country report to be confidential and proprietary in nature.</td>
<td>#1 No Poverty</td>
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### Materials

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<td><strong>2022 Sustainability Report</strong></td>
<td>301-1</td>
<td>Materials used by weight or volume</td>
<td>Circular Economy</td>
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<td>301-2</td>
<td>Recycled input materials used</td>
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<td>301-3</td>
<td>Reclaimed products and their packaging materials</td>
<td>Circular Economy</td>
<td>a = 113-115</td>
<td>301-3 a</td>
<td>Information unavailable or incomplete</td>
<td>We are in the process of developing a system to track our reclaimed materials data in the short term.</td>
<td>#8 Decent Work and Economic Growth #12 Responsible Consumption and Production</td>
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## GRI INDEX

### Appendix I

#### Energy

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<td>Management of material topics</td>
<td>Energy Efficiency &amp; Sourcing Renewable Energy; Appendix C - Environmental Data; Product Innovation &amp; Stewardship</td>
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<td>302-1</td>
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<td>Energy consumption within the organization</td>
<td>Energy Efficiency &amp; Sourcing Renewable Energy; Appendix C - Environmental Data</td>
<td>a = 277-283 b = 55 c = 55, 277-283 d = None e = 55 f = 262 g = 283</td>
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<td>Energy consumption outside of the organization</td>
<td>Appendix C - Environmental Data</td>
<td>a, b = 277-283 c = 283</td>
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<td>Energy intensity</td>
<td>Energy Efficiency; Appendix C - Environmental Data</td>
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<td>302-4</td>
<td>Reduction of energy consumption</td>
<td>Energy Efficiency &amp; Sourcing Renewable Energy; Appendix C - Environmental Data</td>
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<td>302-5</td>
<td>Reductions in energy requirements of products and services</td>
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<td></td>
<td></td>
<td>Not applicable</td>
<td>Owens Corning does not manufacture any products that require energy to use.</td>
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**Location Omission**

- **Energy**
  - a, b, c, d = 55, 277-283
  - e = 54, 262
  - f = 262
  - g = 283

**Explanation/Additional Comments**

- Owens Corning does not manufacture any products that require energy to use.
# Water and Effluents

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<td>Responsible Water Sourcing &amp; Consumption; Appendix C - Environmental Data</td>
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<td>303-1</td>
<td>Interactions with water as a shared resource</td>
<td>Responsible Water Sourcing &amp; Consumption</td>
<td>a = 87-95</td>
<td>b = 90-92</td>
<td>c = 93-95</td>
<td>d = 88-89</td>
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<td>303-2</td>
<td>Management of water discharge-related impacts</td>
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<td>Water withdrawal</td>
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<td>a = 88, 291</td>
<td>b = 88, 293</td>
<td>c = 294</td>
<td>d = 87-96</td>
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<td>Water discharge</td>
<td>Responsible Water Sourcing &amp; Consumption; Appendix C - Environmental Data</td>
<td>a = 92, 292</td>
<td>b = 295</td>
<td>c = 293</td>
<td>d = 92, 292</td>
<td>e = 87-96</td>
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<td>303-5</td>
<td>Water consumption</td>
<td>Responsible Water Sourcing &amp; Consumption; Appendix C - Environmental Data</td>
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<td>b = 88, 295</td>
<td>d = 87-95, 262</td>
<td>303-5 c</td>
<td>Not applicable</td>
<td>Water storage is not identified as having a significant water-related impact.</td>
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### Biodiversity

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<td>Protecting Biodiversity</td>
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<td>304-1</td>
<td>Operational sites owned, leased, managed in, or adjacent to, protected areas and areas of high biodiversity value outside protected areas</td>
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<td>Significant impacts of activities, products, and services on biodiversity</td>
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<td>a = 73-77, b = 73</td>
<td>304-2 b. iii &amp; iv</td>
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<td>304-3</td>
<td>Habitats protected or restored</td>
<td>Protecting Biodiversity</td>
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<td>304-4</td>
<td>IUCN Red List species and national conservation list species with habitats in areas affected by operations</td>
<td>Protecting Biodiversity</td>
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## Emissions

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<td>Management of material topics</td>
<td>Combating Climate Change; Appendix C - Environmental Data; About the Report, Air Quality Management</td>
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<td>#13 Climate Action</td>
<td>#14 Life Below Water</td>
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<td>Direct (Scope 1) GHG emissions</td>
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<td>#13 Climate Action</td>
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<td>305-2</td>
<td>Energy indirect (Scope 2) GHG emissions</td>
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<td>#13 Climate Action</td>
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<td>Other indirect (Scope 3) GHG emissions</td>
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<td>305-4</td>
<td>GHG emissions intensity</td>
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<td>305-5</td>
<td>Reduction of GHG emissions</td>
<td>Combating Climate Change</td>
<td>a = 54, b = 262</td>
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<td>Emissions of ozone-depleting substances (ODS)</td>
<td>Appendix C - Environmental Data</td>
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<td>#13 Climate Action</td>
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<td>Nitrogen oxides (NOx), sulfur oxides (SOx), and other significant air emissions</td>
<td>Air Quality Management</td>
<td>a = 80-82</td>
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<td>306-1</td>
<td>Waste generation and significant waste-related impacts</td>
<td>Waste Management; Circular Economy</td>
<td>a = 97-118</td>
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<td>Management of significant waste-related impacts</td>
<td>Circular Economy; Waste Management</td>
<td>a = 107-118 b = See comments c = 99, 101, 262</td>
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<td>306-4</td>
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<td>Waste Management; Appendix C - Environmental Data</td>
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<td>Waste directed to disposal</td>
<td>Waste Management; Appendix C - Environmental Data</td>
<td>a, b, c, e = 103-104 d = 296-298</td>
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### Supplier Environmental Assessment

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<td>Supply Chain Sustainability</td>
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<td>New suppliers that were screened using environmental criteria</td>
<td>Supply Chain Sustainability</td>
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<td>Negative environmental impacts in the supply chain and actions taken</td>
<td>Supply Chain Sustainability</td>
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<td>Employee Experience; Appendix B - Workforce Data; Appendix D - General Disclosures</td>
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<td>401-1</td>
<td>New employee hires and employee turnover</td>
<td>Appendix B - Workforce Data</td>
<td>a = 268</td>
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<td>401-2</td>
<td>Benefits provided to full-time employees that are not provided to temporary or part-time employees</td>
<td>Appendix D - General Disclosures</td>
<td>a = 299</td>
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<td>401-3</td>
<td>Parental leave</td>
<td>Employee Experience</td>
<td>a = 299, 216</td>
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</table>

While we are disclosing that all employees are entitled to leave (a) and the number of North American staff who took parental leave in 2022 by gender (b), we are also developing the data collection necessary to disclose the full GRI 401-3 requirements in next year’s sustainability report.

### Labor/Management Relations

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<td>Employee Experience</td>
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<td>402-1</td>
<td>Minimum notice periods regarding operational changes</td>
<td>Employee Experience</td>
<td>a, b = 216</td>
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### Occupational Health and Safety

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### Child Labor

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<td>b = 122-123, 255</td>
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### Forced or Compulsory Labor

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<td>Operations with local community engagement, impact assessments, and development programs</td>
<td>Community Engagement</td>
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<td>Owens Corning is in the process of conducting community needs assessments at select company locations around the world. We are gathering information, but we have not completed assessments at all locations. Owens Corning plans to assess sustainable community engagement needs for U.S. facilities in a systematic manner within the next five years that will include these topics. Owens Corning tracks all Environmental Non-Conformities and Notices of Violation.</td>
<td>#1 No Poverty #2 Zero Hunger</td>
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<td>Owens Corning is in the process of conducting community needs assessments at select company locations around the world. We are gathering information, but we have not completed assessments at all locations. Owens Corning plans to assess sustainable community engagement needs for U.S. facilities in a systematic manner within the next five years that will include these topics. Owens Corning tracks all Environmental Non-Conformities and Notices of Violation.</td>
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<th>CHAPTER</th>
<th>PAGE NUMBER</th>
<th>GRI REQUIREMENT(S)</th>
<th>REASON</th>
<th>EXPLANATION/ADDITIONAL COMMENTS</th>
<th>SDG TARGET LINKAGE</th>
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<tr>
<td>GRI 3: Material Topics 2021</td>
<td>2-3</td>
<td>Management of material topics</td>
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<td></td>
<td>415-1</td>
<td>Political contributions</td>
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<td>a = Disclaimer at bottom of page 168; Do not disclose by country</td>
<td>b = None. We do not provide in-kind political contributions</td>
<td>415-1 a. Partially omitted</td>
<td>Confidentiality constraints</td>
<td>Due to confidentiality constraints, total monetary value is disclosed, but not by country/recipient.</td>
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## Customer Health and Safety

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### Marketing and Labeling

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<td>Requirements for product and service information and labeling</td>
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<td>a = 152-156</td>
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<td>Information unavailable or incomplete</td>
<td>Although a percentage is unavailable, see our HPD public repository SDSs, SUISs, product data sheets, installation guides, etc.</td>
<td>#16 Peace, Justice, and Strong Institutions</td>
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### Customer Privacy

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