# **CDP Climate Change Questionnaire 2023**



# Graphic Packaging International LLC

CDP Climate Questionnaire 2023



# **Welcome to your CDP Climate Change Questionnaire 2023**

# C0. Introduction

# C<sub>0.1</sub>

# (C0.1) Give a general description and introduction to your organization.

Graphic Packaging Holding Company (together with its subsidiaries, "Graphic Packaging" or the "Company" or "GPI"; NYSE: GPK,) is a global leader in sustainable consumer packaging made primarily from responsibly sourced tree fiber. The company packages life's everyday moments, serving the world's most recognized food, beverage, foodservice and consumer product brands, with innovative solutions that are designed for convenience, protection and recyclability. Headquartered in Atlanta, Georgia, Graphic Packaging operates in 27 countries with more than 24,000 employees and will have nearly \$10 billion in annual sales in 2023. Learn more at www.graphicpkg.com.

The Company is one of the largest producers of fiber-based consumer and foodservice packaging products in the United States ("U.S.") and Europe and holds leading market positions in manufacturing coated unbleached kraft paperboard ("CUK"), coated-recycled paperboard ("CRB") and solid bleached sulfate paperboard ("SBS").

Our packaging solutions are made primarily from renewable wood fiber, and most of our paperboard packaging and food service products are designed to be recycled. We work to reduce our impact on the environment through our own operations and through innovative paperboard solutions. As part of our Vision 2025, we challenged our team to achieve significant improvements. In the next few years, we intend to reduce greenhouse gas emissions intensity, non-renewable energy usage intensity, and mill water effluents intensity by 15%, and reduce the use of low-density polyethylene (LDPE) by 40%. In addition, we have established a goal for 100% of Graphic Packaging revenues to come from products that are designed to be recyclable. Progress achieving our goals is reported in our annual ESG report available on our website: https://www.graphicpkg.com/esg-disclosures/.



Certain statements regarding the expectations of Graphic Packaging, including, but not limited to, the Company's plans or estimates with respect to energy use reductions, water usage and climate related events in this report constitute "forward-looking statements" as defined in the Private Securities Litigation Reform Act of 1995. Such statements are based on currently available operating, financial and competitive information and are subject to various risks and uncertainties that could cause actual results to differ materially from the Company's historical experience and its present expectations. These risks and uncertainties include, but are not limited to, the Company's ability to obtain permits and other administrative approvals, changes in revenue due to climate related concerns, and supply chain disruptions. Undue reliance should not be placed on such forward-looking statements, as such statements speak only as of the date on which they are made, and the Company undertakes no obligation to update such statements, except as may be required by law. Additional information regarding these and other risks is contained in Part I, "Item 1A., Risk Factors" of the Company's 2021 Annual Report on Form 10-K, and in other filings with the Securities and Exchange Commission.

# C<sub>0.2</sub>

(C0.2) State the start and end date of the year for which you are reporting data and indicate whether you will be providing emissions data for past reporting years.

# Reporting year

### Start date

January 1, 2022

### End date

December 31, 2022

Indicate if you are providing emissions data for past reporting years

Yes

Select the number of past reporting years you will be providing Scope 1 emissions data for 1 year

Select the number of past reporting years you will be providing Scope 2 emissions data for 1 year



# Select the number of past reporting years you will be providing Scope 3 emissions data for 1 year

# C<sub>0.3</sub>

# (C0.3) Select the countries/areas in which you operate.

Australia

Austria

Brazil

Canada

Croatia

Estonia

Finland

France

Germany

Indonesia

Ireland

Mexico

Netherlands

New Zealand

Nigeria

Poland

Russian Federation

Spain

Sweden

Switzerland

United Kingdom of Great Britain and Northern Ireland

United States of America



# C<sub>0.4</sub>

(C0.4) Select the currency used for all financial information disclosed throughout your response.

USD

# **C0.5**

(C0.5) Select the option that describes the reporting boundary for which climate-related impacts on your business are being reported. Note that this option should align with your chosen approach for consolidating your GHG inventory.

Operational control

# C-AC0.6/C-FB0.6/C-PF0.6

(C-AC0.6/C-FB0.6/C-PF0.6) Are emissions from agricultural/forestry, processing/manufacturing, distribution activities or emissions from the consumption of your products – whether in your direct operations or in other parts of your value chain – relevant to your current CDP climate change disclosure?

	Relevance
Agriculture/Forestry	Elsewhere in the value chain only [Agriculture/Forestry/processing/manufacturing/Distribution only]
Processing/Manufacturing	Both direct operations and elsewhere in the value chain [Processing/manufacturing/Distribution only]
Distribution	Both direct operations and elsewhere in the value chain [Processing/manufacturing/Distribution only]
Consumption	Yes [Consumption only]

# C-AC0.6b/C-FB0.6b/C-PF0.6b

(C-AC0.6b/C-FB0.6b/C-PF0.6b) Why are emissions from agricultural/forestry activities undertaken on your own land not relevant to your current CDP climate change disclosure?

### Row 1



# **Primary reason**

Evaluated but judged to be unimportant

### Please explain

Graphic Packaging owns and manages less than 2,500 hectares of forest land. We estimate that our wood basket is represented by ~8.7 million hectares. Therefore, our managed land represents 0.03% of the forest land required to service the Company's mills. Graphic Packaging has no material direct emissions associated with the agricultural/forestry activities undertaken to harvest the resources used at our facilities.

# C-AC0.7/C-FB0.7/C-PF0.7

(C-AC0.7/C-FB0.7/C-PF0.7) Which agricultural commodity(ies) that your organization produces and/or sources are the most significant to your business by revenue? Select up to five.

# **Agricultural commodity**

Timber

# % of revenue dependent on this agricultural commodity

60-80%

### Produced or sourced

Sourced

# Please explain

Graphic Packaging manufactures paperboard and paperboard packaging using both virgin tree fiber and recycled paper materials. Approximately 65% of the paperboard and paperboard packaging we sell is manufactured using virgin wood/wood products as a starting material. The remaining balance of product sales (~35%) is from coated recycled paperboard and packaging products, plastic packaging products, and packaging machinery.



# C0.8

# (C0.8) Does your organization have an ISIN code or another unique identifier (e.g., Ticker, CUSIP, etc.)?

Indicate whether you are able to provide a unique identifier for your organization	Provide your unique identifier
Yes, an ISIN code	US3886891015
Yes, a CUSIP number	388689101
Yes, a Ticker symbol	GPK

# C1. Governance

# C1.1

(C1.1) Is there board-level oversight of climate-related issues within your organization?

Yes

# C1.1a

# (C1.1a) Identify the position(s) (do not include any names) of the individual(s) on the board with responsibility for climate-related issues.

Position of individual or committee	Responsibilities for climate-related issues
Board-level committee	Our Board of Directors, which includes our President and CEO, guides our purpose, values, and sustainability strategy, including climate-change matters. In recognition of the importance of sustainability matters to the Company, we believe that a two-tiered level of oversight provides the best structure to integrate consideration of ESG and climate risks/opportunities into our overall business strategy and help us meet the changing demands of all our stakeholders. As set forth in our Corporate Governance Guidelines, our Board is responsible for reviewing, approving, and monitoring business strategies and financial performance and ensuring appropriate



oversight is in place. The Board fulfills these responsibilities through a number of practices, including: approval of the annual operating and strategic long-range plans, review of results against such plans and review and approval of significant corporate actions. In addition, the Board is responsible for the oversight of our sustainability and climate strategy, governance standards, goals and performance, and has assigned principal oversight of our sustainability policy and practices to the Nominating and Corporate Governance Committee. The Nominating and Corporate Governance Committee (NCGC) of the Board considers current and emerging social and environmental trends, as well as major legislative and regulatory developments and other public policy issues that may impact our business operations or stakeholders. The Committee also reviews the Company's policy and practices for consistency with its ESG and climate commitments, including goals, performance metrics, mitigation plans, and public reporting and makes recommendations to the Board and management. Oversight of governance matters such as enterprise risk management, including climate risk, is assigned to the Audit Committee. An example of a climate-related decision made by the Committee: In 2022, the Board endorsed the Company's plans to invest in a new CRB mill in Waco, TX and potential closure of older CRB mill assets as part of its longer term strategy to improve energy and water efficiency for manufacturing CRB board and reduce total GHG emissions.

# C1.1b

# (C1.1b) Provide further details on the board's oversight of climate-related issues.

Frequency with which climate-related issues are a scheduled agenda item	Governance mechanisms into which climate-related issues are integrated	Please explain
Scheduled – all meetings	Reviewing and guiding annual budgets Overseeing major capital expenditures Overseeing acquisitions, mergers, and divestitures Reviewing innovation/R&D priorities	Our Board of Directors, which includes our President and CEO, guides our purpose, values, and sustainability strategy, including climate-change matters. In recognition of the importance of sustainability matters to the Company, we believe that a two-tiered level of oversight provides the best structure to integrate consideration of ESG and climate risks/opportunities into our overall business strategy and help us meet the changing demands of all our stakeholders. As set forth in our Corporate Governance Guidelines, our Board is responsible for reviewing, approving, and monitoring business strategies and financial performance and ensuring appropriate oversight is in place. The Board fulfills these responsibilities through a number of practices, including: approval of the annual operating and strategic long-range plans, review of



Reviewing and guiding strategy
Overseeing the setting of corporate targets
Monitoring progress towards corporate targets
Overseeing and guiding public policy engagement
Reviewing and guiding the risk management process

results against such plans and review and approval of significant corporate actions. In addition, the Board is responsible for the oversight of our sustainability and climate strategy, governance standards, goals and performance and has assigned principal oversight of our sustainability policy and practices to the Nominating and Corporate Governance Committee.

The Nominating and Corporate Governance Committee (NCGC) of the Board considers current and emerging social and environmental trends, as well as major legislative and regulatory developments and other public policy issues that may impact our business operations or stakeholders. The Committee also reviews the Company's policy and practices for consistency with its ESG and climate commitments, including goals, performance metrics, mitigation plans, and public reporting and makes recommendations to the Board and management.

The Audit Committee of the Company's Board of Directors oversees our integrated risk management framework that is designed to identify, prioritize, address, manage, monitor and communicate our top strategic, financial, operating, business, compliance, safety, reputational and other risks, including climate-related risks across the organization.

The NCGC makes recommendations to the Board and management as it deems advisable and has sustainability and ESG as standard agenda items at certain of its meetings. In 2022, Management updated the Board and the NCGC as part of routine sustainability updates and reviewed and approved the Company's sustainability report in September 2022. The Board also oversees major capital expenditures, like the planned investment in a new coated recycled paperboard (CRB) mill in Waco, TX as part of our transformational CRB platform optimization project. The optimization of our platform is expected to reduce greenhouse gas intensity, purchased fossil fuel energy intensity, and water effluent intensity in our CRB platform. The Board reviews the company-wide long-range plan and budget each September.



# C1.1d

# (C1.1d) Does your organization have at least one board member with competence on climate-related issues?

	Board member(s) have competence on climate-related issues	Criteria used to assess competence of board member(s) on climate-related issues
Row 1	Yes	The Nominating and Corporate Governance Committee is responsible for reviewing the composition of the Board and recommending refreshment to meet the evolving needs of the Company and maintain an appropriate balance of 1) qualifications and experience 2) ethnic and gender diversity and 3) tenure of longer-serving directors with continuity and depth of Company knowledge and new directors with fresh perspectives. The NCGC reviews annual board member and board committee self-evaluations to identify director qualifications, skills, experience, attributes, and diversity that would enhance overall Board effectiveness. This assessment is used to establish criteria for identifying and evaluating potential new candidates for the Board. However, as a general matter, the NCGC seeks individuals with significant and relevant business experience who demonstrate:
		<ul> <li>The highest personal and professional integrity;</li> <li>Commitment to driving the Company's success;</li> <li>An ability to provide informed and thoughtful counsel on a range of issues, including climate-related issues; and</li> <li>Exceptional ability and judgment.</li> </ul>
		The NCGC regularly assesses the skills, background and expertise of the members of the Board (including having directors complete an annual skills self-assessment) and identifies the Company's needs, including skills and experience related to environmental matters important to the company like climate and water-related matters. As part of this process, the Nominating and Corporate Governance Committee strives to select nominees with relevant business experience, the personal characteristics described above, and a wide variety of skills and viewpoints, informed by diversity of race, ethnicity and gender.



# C1.2

### (C1.2) Provide the highest management-level position(s) or committee(s) with responsibility for climate-related issues.

### Position or committee

Chief Executive Officer (CEO)

# Climate-related responsibilities of this position

Assessing climate-related risks and opportunities Managing climate-related risks and opportunities

# Coverage of responsibilities

# **Reporting line**

Reports to the board directly

# Frequency of reporting to the board on climate-related issues via this reporting line

More frequently than quarterly

### Please explain

The President and CEO has ultimate responsibility for the implementation of sustainability practices across the Company. Together with members of the Executive Team, the President and CEO is responsible for embedding consideration of ESG risks and opportunities, including climate-related issues, into our business strategy, plans and budgets; merger, acquisition, and divestiture decisions; and achieving our Vision 2025 business and ESG goals. The CEO and members of the Executive Team meet at least quarterly to monitor progress towards the Vision 2025 goals and regularly report to the board on a variety of topics that directly or indirectly involve climate-related issues (such as the Company's climate-related initiatives, progress against climate-related goals and targets; and capital expenditures). Placing responsibility for environmental, social, and governance issues, including climate-related issues, with the Executive Leadership Team enhances the visibility and importance of these issues and effectively integrates them into our business practices to drive progress.



### Position or committee

Other C-Suite Officer, please specify EVP, General Counsel & Secretary

# Climate-related responsibilities of this position

Assessing climate-related risks and opportunities Managing climate-related risks and opportunities

# **Coverage of responsibilities**

# Reporting line

CEO reporting line

# Frequency of reporting to the board on climate-related issues via this reporting line

More frequently than quarterly

# Please explain

Graphic Packaging's Executive Vice President, General Counsel and Corporate Secretary is the highest management-level and C-Suite Officer within the organization to hold responsibility for climate-related issues below the CEO and Company's Board of Directors. She has direct oversight of the CSO, who is a member of the extended Executive Leadership Team. Together they are accountable for aligning the Company's Leadership Team on strategic decisions regarding mitigating climate risks, enhancing our reputation and positioning the Company for future success.

# Position or committee

Chief Sustainability Officer (CSO)

# Climate-related responsibilities of this position



Assessing climate-related risks and opportunities Managing climate-related risks and opportunities

# **Coverage of responsibilities**

# **Reporting line**

Other, please specify

Reports to the EVP, General Counsel and Executive Leadership Team

# Frequency of reporting to the board on climate-related issues via this reporting line

More frequently than quarterly

# Please explain

The CSO is accountable for developing strategy and executing the day-to-day requirements to meet the Company's sustainability goals. Further, the CSO is uniquely qualified to engage with investors, customers, suppliers, and other external stakeholders to ensure comprehensive value chain execution of the sustainability program.

### Position or committee

Other, please specify
Executive Leadership Team

# Climate-related responsibilities of this position

Managing climate-related risks and opportunities

# Coverage of responsibilities

# **Reporting line**

CEO reporting line



# Frequency of reporting to the board on climate-related issues via this reporting line

More frequently than quarterly

### Please explain

The Executive Leadership Team (ELT) operationalizes governance of ESG matters, including climate-related issues, through the VP, Chief Sustainability Officer (CSO). The CSO works with the ELT and senior leaders from each of our business segments and major corporate functions (e.g., operations, research and development, finance, legal, HR, investor relations, procurement, EHS, marketing, etc.) to advance ESG and climate-related initiatives. Our president/CEO will serve as executive sponsor of sustainability and the ELT serves as our ESG Steering Team. Together the President/CEO and ELT are dedicated to accelerating our sustainability journey— growing our Company by driving a sustainable, recyclable product portfolio, effectively managing all our resources, and enhancing social and environmental value.

Climate-related issues are formally monitored on a monthly basis and also in real time. A report on mills division water, energy and GHG emissions is generated, which provides insight into the amount consumed or generated year to date as compared to both previous year and planned metrics. The Company develops and executes countermeasures as appropriate based on monthly trends. The Company also monitors wood purchases monthly. These purchases, as well as wood balances and availability, are reviewed by a multi-stakeholder team. For example, in 2022, the ELT was engaged in various climate-related conversations and supported work to develop SBT options for the Company.

# C1.3

# (C1.3) Do you provide incentives for the management of climate-related issues, including the attainment of targets?

	Provide incentives for the management of climate-related issues	Comment
Row 1	Yes	

# C1.3a

(C1.3a) Provide further details on the incentives provided for the management of climate-related issues (do not include the names of individuals).



#### **Entitled to incentive**

Corporate executive team

# Type of incentive

Monetary reward

### Incentive(s)

Bonus - % of salary Shares

## Performance indicator(s)

Progress towards a climate-related target
Implementation of an emissions reduction initiative
Reduction in emissions intensity
Energy efficiency improvement
Increased share of renewable energy in total energy consumption
Other (please specify)
Operational Performance

# Incentive plan(s) this incentive is linked to

Both Short-Term and Long-Term Incentive Plan

# Further details of incentive(s)

Short-term incentives are based on achieving annual performance objectives, while long-term incentives are based on three-year performance objectives.

Targets are established for key environmental metrics. These environmental metrics are monitored and support financial and productivity metrics, which factor into both short and long-term incentive awards and individual performance goals for the senior leadership team and others associated with them. The assessment of individual performance goals is factored into determining merit increases annually.



# Explain how this incentive contributes to the implementation of your organization's climate commitments and/or climate transition plan

Targets are established for key environmental metrics and are part of our Vision 2025 strategy. Progress achieving the environmental metrics are monitored monthly in our Mill division as that business unit represents a significant percentage of the Graphic Packaging environmental profile.

The performance indicators are aligned with our plans to reduce the carbon intensity of our operations.

### **Entitled to incentive**

All employees

# Type of incentive

Monetary reward

# Incentive(s)

Promotion

Salary increase

# Performance indicator(s)

Implementation of an emissions reduction initiative

Reduction in absolute emissions

Reduction in emissions intensity

Energy efficiency improvement

Increased share of renewable energy in total energy consumption

Reduction in total energy consumption

Other (please specify)

New product offerings

# Incentive plan(s) this incentive is linked to



Not part of an existing incentive plan

# Further details of incentive(s)

Environmental KPIs are embedded into the performance management framework for applicable employees and – along with other metrics – serve as a basis for remuneration and salary reviews. Contributions towards Vision 2025 ESG goals are also eligible for both monetary and nonmonetary internal awards and recognitions.

# Explain how this incentive contributes to the implementation of your organization's climate commitments and/or climate transition plan

Empowering all employees to seek opportunities to reduce energy intensity of our operations and increase use of renewable fuels and energy contributes towards achieving our Vision 2025 ESG goals and reducing the Company's GHG footprint.

# C2. Risks and opportunities

# C2.1

(C2.1) Does your organization have a process for identifying, assessing, and responding to climate-related risks and opportunities?

Yes

# C2.1a

# (C2.1a) How does your organization define short-, medium- and long-term time horizons?

	From	То	Comment
	(years)	(years)	
Short- term	0		Graphic Packaging has adopted an annual work execution cycle. Company performance objectives, budget targets, individual employee goals, risk management objectives, R&D goals, etc. are tracked and reported on an annual basis. Decisions regarding climate-related risks and opportunities are made in real time as risks are identified and assessed or as the business requires. Management is responsible for identifying, mitigating, and managing risks across the organization. Risks or opportunities are identified using a variety of methods and tools.



Medium- term	1	3	Graphic Packaging follows a three-year planning horizon in developing investor commitments, R&D priorities, risk/opportunity assessments, budget and resource allocations, etc. We align our business processes to the three-year plan to drive execution and deliver business results. Climate related risks and opportunities are identified, assessed, and planned for in two distinct processes: during the annual enterprise strategic risk assessment process and then during development of the long-range strategic business plan for the 1 – 3 year forward outlook. Any identified risk or opportunity is incorporated in the plans, including mitigation and monitoring strategies, planning and budgeting, and continued risk reporting, as appropriate.
Long- term	3		As part of our long-range strategic planning, any risks or opportunities that may be identified that are longer than 3 years will be assessed. Longer term risk management or business opportunity strategies may be developed for specific capital investments for long-lived assets, valuable intellectual property, or specific environmental, social, or governance topics due to the time scale for these issue areas. All major investment decisions, portfolio reviews, acquisitions and divestitures are reviewed in the light of long-term trends, opportunities and threats. Those reviews consider the evolution of global trends in regulations, climate change, energy and raw material markets, and consumer demands.

# C2.1b

# (C2.1b) How does your organization define substantive financial or strategic impact on your business?

Substantive financial or strategic impacts are events that could impact our business or operations and require management attention to either mitigate risk or capitalize on new opportunities. To identify and rank substantive financial and strategic impacts we consider both qualitative and quantitative measures. The quantitative measures evaluated include potential impacts to revenue, earnings and assets. Qualitative measures include but are not limited to consideration of impacts to employee/community safety, regulatory requirements, our reputation, business continuity, trends in the underlying business, and suppliers and customers. Substantive impacts would include those that would have a high likelihood to result in a loss of key suppliers or customers, sustained serious loss in market share or Company value, death, serious breaches of legal and regulatory compliance, customer market disintegration, significant impact on shareholders, catastrophic business continuity exposure and financial losses/opportunities. The impacts considered include those related to our direct operations as well as possible impacts to the continuity of our supply chain and our ability to meet customer commitments. These factors are weighed against: (a) The proportion of business units affected; (b) The size of the impact on those business units, and (c) The potential for shareholder, customer or other stakeholder concern. A potential substantive financial impact could occur because of a large change in one of these aspects, or small changes in multiple aspects combining to create a larger impact. A specific climate-related risk or opportunity may be considered as having a potential substantive financial impact if it would reasonably be expected to affect the company's expected revenues,



earnings or assets positively or negatively by a certain quantitative amount that varies as the company grows. However, magnitude of the issue, by itself, without regard to the nature of the specific risk or opportunity and the circumstances in which the judgment has to be made, will not generally be a sufficient basis for the judgment. Graphic Packaging considers both qualitative and quantitative factors together when evaluating whether a specific climate-related risk or opportunity would have a substantive financial or strategic impact on the Company.

Through our risk management process, Graphic Packaging assigns a quantitative score to define a potential substantive financial or strategic impact for each risk/opportunity as follows: a risk magnitude impact factor of 1-5 (with the number corresponding to a range of financial impacts with 1 being low impact and 5 being high impact), and a risk probability impact factor of 1-5 (with risk level 1 corresponding to a risk that rarely occurs within a two-year time period and level 5 corresponding to a risk that is almost certain to occur within a two-year time period). When risk magnitude (financial impact) is multiplied by risk probability (likelihood of the event) and this results in a figure equal to or higher than 10, a risk/opportunity is considered to have a potential substantive financial or strategic impact. For example, a risk with a potential high financial impact score of 5 but a relatively low probability impact score of 2 would receive a rating of 10 indicating a potential substantive impact and would be further evaluated to assess potential risk mitigation actions.

The Company discloses financial and strategic impacts in its filings with the SEC and communications with investors as appropriate to provide context on the business implications of extreme weather-related events. We do this to be transparent with our stakeholders. For instance, in 2019 the Company disclosed the financial implications of the tornado that destroyed parts of the wood conveying system at our West Monroe, Louisiana mill. The publicly disclosed financial cost was approximately \$10 million. The extreme winter storm Uri and damaging ice during the period of February 12-16, 2021 resulted in impacts to our Texarkana, Texas and West Monroe, Louisiana mill facilities. The Company filed an 8-K on February 24, 2021 detailing the damages and provided an early anticipated impact to first quarter of 2022 financial results. When the Company reported quarterly results, the total financial impact to the Company from outages and storm related costs was quantified at \$29 million.

**C2.2** 

(C2.2) Describe your process(es) for identifying, assessing and responding to climate-related risks and opportunities.

Value chain stage(s) covered

Direct operations



Upstream Downstream

### Risk management process

Integrated into multi-disciplinary company-wide risk management process

### Frequency of assessment

More than once a year

### Time horizon(s) covered

Short-term Medium-term Long-term

### **Description of process**

Graphic Packaging uses a comprehensive, integrated Enterprise Risk Management (ERM) system that includes a formal governance process that defines and communicates our policy and expectations regarding risk management and oversight. It assures effective, systematic identification, analysis, prioritization, and management of risks that have the potential to affect our company on a short-, medium-, and long-term basis and provides necessary input to inform our strategic planning and business improvement goals.

Graphic Packaging defines major risks and opportunities (R/Os) as those that could have a substantive financial or reputational impact on the company. The corporate risk management team conducts an annual risk analysis process to validate existing, known risks and identify new and emerging R/Os facing the Company – including considerations for physical and transition R/Os related to climate change. The R/O analysis process considers input from the Board of Directors (Board), executive leadership team (ELT), internal business and function leaders, as well as inputs collected through the strategy, budget, and ESG issue prioritization processes. Potential R/Os may also be identified through external inputs such as professional and trade business associations, professional services firms, industry alerts, government agency communications, the Company Alert line and various conferences or industry round tables. Active programs are also in place to monitor the Company's customer base and end-consumer sentiment to identify potential downstream R/Os.

Each risk is reviewed, evaluated, and prioritized using a scaled, weighted approach that considers the potential likelihood the risk will occur, speed of risk impact, and the degree of impact a given risk could have on the Company. Potential impacts evaluated include those related to our



direct operations (e.g., financial impacts, threats to our right to operate, Company reputational damage, environment or community impact, etc.) as well as possible impacts to our supply chain continuity, ability to meet customer commitments, or impacts to our customers' operations. This prioritization is conducted by internal subject matter experts working with the risk management team. The resulting prioritized risk inventory is reviewed with the ELT for final alignment, and then communicated to the Board. Any significant new or emerging risks that arise throughout the year are analyzed, prioritized, and added to the risk management process. Climate change-related opportunities for new products or product applications are evaluated by the Innovation team using the same criteria applied to all new product opportunities. Market assessments are completed, a determination is made on the viability of the opportunity following corporate investment criteria, and the findings are integrated into business strategy development.

The Board is responsible for overseeing the overall ERM process, and its leadership structure supports its effective oversight. In fulfilling its oversight responsibility, the Board receives various management and board committee reports and engages in periodic discussions with the company's officers, as it may deem appropriate. Specifically, the Board Audit Committee oversees the policies and practices that govern the processes by which major risk exposures are identified, assessed, managed and controlled on an enterprise-wide basis. Responsibility for managing risk rests with the President/CEO and the ELT. The appropriate Company function or business leaders are appointed as risk owners and sponsors for each major risk. Risk mitigation plans are developed and implemented by the risk owner with support from their respective team and risk sponsor. The risk owner develops and monitors key risk indicators to track progress managing the risk and determine if intervention or corrective action is needed. The risk management progress is periodically communicated to the ELT, with a formal, annual review with the Board of Directors and the Audit Committee. Additionally, all risks, including both climate-related physical and transition risks, are reviewed and reassessed on at least a semi-annual basis to identify changes in the internal or external environment which may cause certain risks to recede or others to appear. The process includes robust internal controls and seeks feedback on the effectiveness of applicable controls over material risks. In November 2022, the Audit Committee received the results of the annual enterprise risk assessment including action plans, risk owners, and key risk metrics and provided feedback as part of that committee's oversight responsibilities.

Graphic Packaging currently utilizes a formal risk assessment process to help identify and mitigate risks associated with physical climate-related impacts that may cause significant disruption to our operations, transportation logistics, supply of certain raw materials, or our customer operations. These events happen, on average, every 1-3 years. The Company recently conducted a case study focused on sites located in Louisiana, Missouri, and Pennsylvania, all of which have experienced flooding events in the past few years, which have caused us to take measures to ensure we're mitigating property damages and minimizing production disruptions. We also regularly assess appropriate levels of property insurance to minimize financial implications related to damages from flooding and other natural disasters. In particular, one of the wood baskets upon which Graphic Packaging relies to source wood was negatively impacted by excessive rain. As a result, Graphic Packaging had to



temporarily shift sourcing for raw materials to another wood basket outside our traditional wood basket.

Graphic Packaging also understands that we could face potential transitional risks related to GHG emissions. To mitigate these risks, we work to improve energy efficiency within our operations by investing capital and resources in a variety of energy efficiency initiatives across our operations so that we will be well positioned if there are market and/or cost implications related to increasing regulations governing GHG emissions. For example: in 2021 we completed the installation of a new Coated Recycled Paperboard (CRB) machine in our Kalamazoo, MI site and successfully began operation of the machine in 2022. The new machine is part of our CRB platform optimization investment and will have a positive environmental impact by reducing greenhouse gas emissions, water usage, and purchased energy intensities, and associated transitional risks.

# C2.2a

# (C2.2a) Which risk types are considered in your organization's climate-related risk assessments?

	Relevance & inclusion	Please explain
Current regulation	Relevant, always included	Graphic Packaging is subject to a broad range of international, federal, state and local environmental, health and safety laws and regulations, including those governing GHG emissions and other discharges to air, soil and water. As an energy-and emissions-intensive company, Graphic Packaging may be subject to current and emerging regulations targeting energy use and efficiency as well as reduction of emissions. The Company is tracking and taking actions to reduce our GHG and other air and water emissions to decrease the potential future impact of these regulatory matters. Graphic Packaging includes current regulation risks related to climate change in our annual risk assessment. For example, our converting plants in the UK are required disclose GHG information under the UK SECR scheme. Non-compliance may lead to penalties up to 40K GBP. In addition, our East Angus mill is subject to the Quebec ETS. Changes in future available allowances under the ETS could lead to increased operating costs should the mill need to purchase allowances. Graphic Packaging's business practices ensure that these penalties will not be realized, thus these risks were deemed insignificant to the business. The Company will continue to monitor and mitigate these risks as appropriate. Graphic Packaging's government affairs team follows changes in regulations, laws and commitments that may impact our business. Changes are reported/informed to all relevant personnel and included in the company's enterprise risk management process for further analysis and action as needed.



Emerging	Relevant,	The Company is subject to a broad range of international, federal, state and local environmental, health and safety laws and
Emerging regulation	Relevant, always included	The Company is subject to a broad range of international, federal, state and local environmental, health and safety laws and regulations, including those governing GHG emissions and other discharges to air, soil and water. As an energy- and emissions-intensive company, Graphic Packaging may be subject to current and emerging regulations targeting energy use and efficiency as well as reduction of emissions. These laws and regulations, particularly those that relate to GHG emissions, are evolving and expected to become more stringent over time, which could result in significant additional compliance costs (such as the installation or modification of emission control equipment), increased costs of purchased energy or other raw materials, increased transportation costs, restrictions on our operations, or other additional direct costs (such as cap-and-trade systems or carbon taxes) associated with GHG emissions. The Company is tracking and taking actions to reduce our GHG and other air and water emissions to decrease the potential future impact of these regulatory matters. Graphic Packaging includes emerging regulation risks related to climate change in our risk assessments and continues to evaluate these risks through ongoing informal reviews that occur as part of normal business practices and has processes in place through Government Affairs to track regulations and provide input for consideration in the Enterprise Risk Management process. For example, single-use packaging regulation in the United States could emerge and impact the
		Company's Foodservice business which was approximately 20% of the Company's 2022 revenue. Graphic Packaging continues to monitor the developments of regulations, both in the US and in Europe regarding single use packaging closely due to the proportion of the business that new regulation could impact. However, Graphic Packaging is engaged with industry associations and elected officials on advocacy to increase the recycling of single use packaging, including paper cups, and has made product innovations that will allow the Company to move swiftly and react to any market changes quickly. This flexibility strengthens the Company's position as a leader in the sector.
Technology	Relevant, always included	Graphic Packaging includes technology-related risks related to climate change in our risk assessments and evaluates these risks through ongoing informal reviews that occur as part of normal business practices. Although a relatively small number of large competitors hold a significant portion of the paperboard packaging market, our business is subject to strong competition. As consumer's preferences shift towards more sustainable packaging, we may face increased competition. If we do not invest resources to upgrade or replace aging equipment to ensure we're utilizing the most efficient technologies to manufacture our products, we could experience higher operational costs, decreased cost competitiveness, and potential deselection by customers seeking low-carbon footprint materials. Therefore, in 2021 we completed the installation of and in 2022 began operation of a new world-class Coated Recycled Board (CRB) machine in our Kalamazoo, MI site. The \$600+ million investment will have a positive environmental impact by reducing greenhouse gas emissions, water, and purchased



		energy intensity. The also Company has a strong innovation pipeline with new technologies that are designed to reduce impacts on the environment and is positioned to meet market expectations.
Legal	Relevant, always included	Graphic Packaging includes legal risks related to climate change in our risk assessments and evaluates these risks through ongoing informal reviews that occur as part of normal business practices. As a publicly traded company, Graphic Packaging is required to disclose detailed financial filings in accordance with the Securities Exchange Commission, which include descriptions of material risks that are identified through the company's enterprise risk management approach. Legal risks, including regulatory issues, are closely monitored and managed with respect to ensuring transparent and consistent information is available for shareholders including such matters that may be relevant and related to climate change. Our legal team monitors legal risks and provides input for consideration in the Enterprise Risk Management process.  For example, we are subject to a range of foreign, federal, state, and local environmental regulations. We face risks both in terms of tangible costs from environmental litigation and as reputational risks. The magnitude of this risk has been evaluated and determined to be insignificant in relation to other current business-related risks. Historically, litigation claims made against Graphic Packaging have been insignificant.
Market	Relevant, always included	Graphic Packaging includes market-related risks related to climate change in our risk assessments and these risks are evaluated through ongoing informal reviews that occur as part of normal business practices. As a paperboard manufacturer, we use a variety of raw materials in the production of our products. We face risks related to both the volatility of prices as well as the availability of our raw materials. The Company is also exposed to market shifts from one material to another. Each business unit conducts impact assessments of raw material pricing and availability along with market trends, integrates the findings into business strategy development, and reports impacts to the enterprise risk management team for consideration in the enterprise risk management process.  For example, in 2022 we continued to analyze the market expectation for alternatives to Low Density Polyethylene (LDPE). This material is applied to foodservice packaging and paper cups. Recyclability of foodservice packaging and paper cups is an important environmental concern and with LDPE applied to this packaging it is less desirable in the recycling system. We set a goal of reducing our LDPE purchases by 40% by 2025. Reductions may be in the form of substituting the LDPE with an alternative advanced barrier technology or from decreasing the barrier coating thickness. With the market expectation for an alternative to LDPE, there is both a risk and an opportunity. If we were unable to develop and commercialize an economically viable, alternative coating or another packaging supplier developed and implemented an alternative coating



		before Graphic Packaging, this could impact the Company's Foodservice business which was approximately 20% of 2022 revenue.
Reputation	Relevant, always included	Graphic Packaging includes reputational risks related to climate change in our risk assessments and these risks are evaluated through ongoing informal reviews that occur as part of normal business practices. Our stakeholders expect Graphic Packaging to operate responsibly and act proactively on the challenges of climate change. Some major investors are becoming increasingly outspoken about the risk of climate change. If major investors or sustainability-oriented customers perceive Graphic Packaging business activities to be misaligned with the growing global momentum to act against climate change, this could pose a reputational risk to the company that could lead to customer deselection, and ultimately to lower sales and a reduced market valuation. This aspect of our reputation could also be significant from an employer branding perspective, impacting our ability to attract and retain new, especially young, employees. Graphic Packaging's recent commitment to develop climate goals in-line with science-based targets combined with actions taken to mitigate the company's contributions to climate change help reduce associated reputational risks. Graphic Packaging has processes in place through our Investor Relations, Environment, Health and Safety, Marketing, Product Innovation, and Talent Acquisition teams to collect external stakeholder feedback and provide input for consideration in the Enterprise Risk Management process. Reputation risk is one of our evaluation criteria in our Enterprise Risk Management process used to evaluate whether or not a risk is a major risk to the Company.  For example: There is increasing concern about deforestation and the potential impact on climate change and biodiversity. There is a risk that consumers, customers and investors may consider logging trees and the use of virgin fiber as a less
		environmentally friendly option than the use of recycled fiber. Graphic Packaging is mitigating this risk by supplying wood fiber from sustainably managed forests. The majority of the wood we purchase for our virgin mills is sourced in the southeast U.S. and is typically from within a 60-mile radius of our mills. This region is low risk for deforestation. The wood used by Graphic Packaging meets the criteria for SFI™ Sustainable Sourcing, PEFC™ Controlled Sources, and FSC® Controlled Wood. Responsible use of forest materials and recyclable packaging products help give the company a good reputation among customers and investors.
Acute physical	Relevant, always included	Graphic Packaging includes acute physical risks related to climate change in our risk assessments and these risks are evaluated through ongoing informal reviews that occur as part of normal business practices. Graphic Packaging operates mills and converting plants in regions that are prone to the acute physical impacts of climate change including severe weather events and increased frequency of high intensity rainfall events, tornados, extreme temperature events, or river



		flooding. Respective changes in physical climate parameters can lead to more extreme weather conditions, which represent an inherent risk for our production capacity and supply chains. Potential impacts arising from severe weather events are considered in the Enterprise Risk Management process.  While we take appropriate measures to minimize the risk and effect of material disruptions to the business conducted at our facilities, climate-related natural disasters such as hurricanes, tornadoes, floods, and fires can impact production, increase our manufacturing costs, and potentially impact our customer's ability to operate. As an example, the Graphic Packaging paperboard mill in West Monroe, Louisiana was damaged by a tornado in 2019. The impact on operations was minimal and the costs of the damage were approximately \$10 million. The 2021 winter storm Uri and freezing conditions that impacted Texas and Louisiana in 2021 impacted our regional supply chain, caused a disruption at our Texarkana mill, and resulted in \$21 million in related downtime and mitigation costs. Winter storm Elliott similarly created operations disruptions in 2022. We were also exposed to acute physical risk related to floods at our Pacific, Missouri carton plant. The facility experienced two one-hundred-year floods in a three-year time frame. During each flood, the Company minimized the impact by elevating equipment and inventory to prevent water damage and relocated manufacturing until the flood receded. The Company has also invested in an AquaDam to place around the facility in the case of another flood. The cost was less than \$1 million for the AquaDam. As shown in our response to these events, Graphic Packaging is well-positioned to react to extreme weather events and is well prepared to ensure that the impact from the next event is minimal.
Chronic physical	Relevant, always included	Graphic Packaging includes chronic physical risks related to climate change in our risk assessments and these risks are evaluated through ongoing informal reviews that occur as part of normal business practices. While we take appropriate measures to minimize the risk and effect of material disruptions to the business conducted at our facilities, climate-related natural disasters such as heavy rain can impact production, increase our manufacturing costs, disrupt transportation routes, and potentially impact our suppliers and/or our customer's ability to operate.  For example: Global warming will create rising temperatures, changes in precipitation, and water shortages in certain
		regions. In our US wood basket these kinds of risks consist typically of heavy thunderstorms, flooding, and increased numbers or severity of tornados which can all impact tree viability and/or harvestability. Milder, wetter winters make harvesting conditions more difficult due to wet and soft soil in the forests. This may cause the need to i) increase the wood stock levels during the winter months to ensure wood availability (causing additional capital costs), ii) supply wood from new forest areas (additional costs in the form of extra transportation costs) or iii) in the worst scenario, curtail pulp and



paperboard production due to temporary shortage of wood raw material. In 2021, one of the wood baskets that Graphic Packaging relies upon to source wood was negatively impacted by excessive rain. Graphic Packaging had to shift sourcing for raw materials to another wood basket outside our traditional wood supply region. The shift was executed in real-time and did not have a negative impact.

# **C2.3**

(C2.3) Have you identified any inherent climate-related risks with the potential to have a substantive financial or strategic impact on your business?

Yes

# C2.3a

(C2.3a) Provide details of risks identified with the potential to have a substantive financial or strategic impact on your business.

### Identifier

Risk 1

Where in the value chain does the risk driver occur?

Direct operations

Risk type & Primary climate-related risk driver

Acute physical

Flood (coastal, fluvial, pluvial, groundwater)

Primary potential financial impact

Increased direct costs

**Company-specific description** 



Graphic Packaging's operations face climate-related physical risks related to extreme weather events and increased flooding. As the severity and/or frequency of extreme weather events increases, as predicted under different climate scenarios, this could impact our operations by causing one or more of our facilities to become inoperable resulting in a direct impact on our production, sales, and/or costs. Many of our operating sites are located near rivers, and the risk of flooding may increase due to surface water flooding following extreme rainfall or rapid snow melting events. For example, sites located in Louisiana, Missouri, and Pennsylvania have all experienced acute flooding events in the past few years, which has caused us to take measures to ensure we are mitigating property damages and minimizing production disruptions. Graphic Packaging has taken specific actions to prepare its operating locations to minimize financial impact and maintain business continuity during extreme, acute weather events. Insurance policies are in place to mitigate potential loss or damage and recovery time. Crisis management procedures have been established and tested to ensure personnel understand what to do to respond during a weather-related emergency. Multiple sites have been qualified to produce the same products, providing manufacturing redundancy to ensure business continuity to meet customer orders should a location become inoperable. Reliability Center Maintenance teams are in place to monitor and perform maintenance over assets. Flood mitigating controls are at the ready to prevent or limit damages. Inventory of critical spare parts is managed based on lead time. Back-up plans are in place in the event resources cannot get to the worksite. In addition, we regularly review physical controls and additional insurance coverage needs at these locations to test adequacy.

### Time horizon

Short-term

### Likelihood

Likely

# Magnitude of impact

Low

Are you able to provide a potential financial impact figure?

Yes, an estimated range

Potential financial impact figure (currency)

Potential financial impact figure – minimum (currency)

5,000,000



### Potential financial impact figure – maximum (currency)

20,000,000

### **Explanation of financial impact figure**

Financial implications from climate related events are difficult to quantify due to unforeseen variables that can impact the overall significance of these risks and the fact that Graphic Packaging reacts and deploys mitigation measures in real time. As such, the impact has not been quantified financially. We do have experience with prior events and as indicated the financial implications have ranged up to \$13 million. Financial implications could impact our overall costs of operations as well as our ability to fund capital expenses. These financial implications are considered immaterial. Estimating one climate-related adverse event yearly, and assuming the cost of the adverse event will range from \$5,000,000 to \$20,000,000 based on costs of prior adverse climate-related weather events, the financial impact figure is between 1\*\$5,000,000 = \$5,000,000 and 1\*\$20,000,000 = \$20,000,000

### Cost of response to risk

6,000,000

### Description of response and explanation of cost calculation

Situation: Extreme weather events and flooding pose a risk to Graphic Packaging's sites, many of which are located near rivers.

Task: We have taken actions to prepare locations to minimize financial impact and maintain business continuity during extreme weather events. These include establishing appropriate insurance policies, manufacturing redundancy, and crisis management procedures.

Action: It is expected that financial impacts related to extreme weather events are managed such that the Graphic Packaging's performance is not severely impacted. We manage this risk via our enterprise risk management process control plan. The risk owner ensures that appropriate insurance is in place and adequate coverage levels are maintained. We perform an annual insurance review that is reported to the Audit Committee, and will purchase additional flood insurance coverage as needed for our manufacturing facilities.

Proactive site protection actions have been taken by operations to minimize potential flood-related impacts to facilities and inventory. The organization has purchased temporary barriers (AquaDams) to deploy as necessary to create an artificial levee/dam around a key facility to prevent floodwater intrusion. Anti-flood protection devices such as pumps are stored and ready when needed to reduce the impact of rising flood water. Reliability experts and maintenance personnel are trained, staffed and ready, and critical parts are maintained in inventory to ensure production is restored as quickly as possible following an event.

Result: Several of Graphic Packaging's plants have experienced a flood event. Each event was addressed effectively via redundant capacity and proactive measures where possible. The cost response figure is an estimate based on learnings from historic weather events which have



impacted our operations. The most recent flooding event occurred in 2021 at Phoenixville, PA and caused significant damage to the site, requiring us to repair and/or replace production equipment and redirect resources from other converting locations. Sr Mgmt is currently investigating flood mitigation measures for this location and monitoring annually through our risk management program.

Cost: The cost of administering our flood risk management program, which includes the internal costs of administering the program, the annual cost of the insurance premiums, and other site preparedness activities is \$6,000,000 annually: 1 year \* \$6,000,000 = \$6,000,000

### Comment

# C2.4

(C2.4) Have you identified any climate-related opportunities with the potential to have a substantive financial or strategic impact on your business?

Yes

# C2.4a

(C2.4a) Provide details of opportunities identified with the potential to have a substantive financial or strategic impact on your business.

### Identifier

Opp1

Where in the value chain does the opportunity occur?

Direct operations

### **Opportunity type**

Products and services



# Primary climate-related opportunity driver

Development of new products or services through R&D and innovation

### **Primary potential financial impact**

Increased revenues resulting from increased demand for products and services

# Company-specific description

Concerns about climate change, the need to reduce waste (particularly fossil fuel based plastic waste), and shifts towards a circular economy are shaping how companies think about their packaging products. Customers are looking to lessen the environmental impact of their packaging by following the reduce, reuse, recycle approach as they evolve their packaging design and materials selection. Graphic Packaging is well positioned in the market, as a wood fiber-based packaging company, to be a solution provider to respond to these growing external pressures. The Company's business model is based on developing resource-efficient manufacturing processes that run on renewable energy to produce sustainable, recyclable packaging products that are predominantly made from renewable raw materials. Graphic Packaging incorporates sustainability criteria and design for the environment thinking into its SOAR product development innovation process to create new packaging solutions for its customers – helping them reduce the materials they use and ship while generating less waste for their customers. Throughout our process, we consider the full life cycle of the package and its impact from packaging design, material selection and sourcing, to manufacturing, and ultimately through end of life. We have developed patented packaging alternatives that provide equivalent performance and protection but use less materials – reducing life cycle carbon emissions and raw material resource consumption. We partner with suppliers to develop new barrier materials that provide the same performance while improving the recyclability and/or compostability of the packaging – reducing potential waste from the packaging and improving circularity. Lastly, our team works to innovate paper-based packaging solutions that can be substituted for hard to recycle/non-recyclable fossil-fuel based packaging – supporting the transition to a lower-carbon, circular economy that relies on tree-based renewable materials to create easily recycled products. Our innovation teams also incorporate features that enhance customer brand building opportunities in the design as well as delight the end-consumer by offering potential to reuse the packaging in new ways.

### Time horizon

Short-term

#### Likelihood

Very likely



# Magnitude of impact

Medium-high

# Are you able to provide a potential financial impact figure?

Yes, an estimated range

### Potential financial impact figure (currency)

### Potential financial impact figure – minimum (currency)

400,000,000

# Potential financial impact figure – maximum (currency)

700,000,000

### **Explanation of financial impact figure**

In our 2025 Vision we anticipate adding new organic revenue growth of \$400 - \$700 million (over the period of 2020 – 2025) that is directly attributed to our innovation efforts. This figure has been based on assessment of the addressable market opportunity demand for substituting plastic packaging with more sustainable packaging solutions. Graphic Packaging conservatively estimated a range for percent adoption of our new packaging products to replace existing, less sustainable packaging when developing the minimum and maximum range for opportunity values. Addressable market value and conversion assumptions are not provided for business confidentiality reasons. Minimum Opportunity: (\$400,000,000 \* 100%) targeted revenue = \$400,000,000. Maximum Opportunity: (\$700,000,000 \* 100%) targeted revenue = \$700,000,000.

# Cost to realize opportunity

34,000,000

# Strategy to realize opportunity and explanation of cost calculation

Situation: Customers are looking to lessen the environmental impact of their packaging as they evolve their packaging design and materials selection. We are well positioned, as a wood fiber-based packaging company, to be a solution provider to respond to these growing external pressures.

Task: Graphic Packaging is committed to sustainable innovation and has allocated investments both in terms of research and development as



well as capital allocation to ensure that we have the appropriate resources to develop packaging solutions that will improve the environmental metrics of our customers' products. We keep abreast of consumer expectations to ensure that we're meeting preferences as they continue to shift towards more sustainable packaging.

Action: We have established 8 R&D innovation centers in the US and the EU and have expanded our packaging innovation "toolset" as part of our 2021 acquisition of AR Packaging. Over the past few years, our Chief Innovation Leader has restructured our R&D and marketing teams to improve market sensing capabilities as well as foster collaboration, ideation, and leveraging solutions from one global region to another. We have invested in innovation, research and development, and digital capabilities to allow us to capture sustainability supported organic growth. Throughout 2022 we have continued to develop products which look to have a positive environmental impact. We are focusing on providing fiber-based solutions to the problems surrounding single-use plastics. Example products we have commercialized include KeelClip™, Cap-It™, and EnviroClip™ beverage packaging solutions, PaperSeal™, ProducePack™, and Boardio™ food packaging solutions, the Ecotainer™ and OptiCycle™ foodservice solutions, and the ZFlute™ and IntegraFlute™ strength packaging solutions.

Result: These products are a representative sample of the many sustainable packaging solutions our innovation teams are developing that are expected to deliver \$400 - \$700 million in organic revenue growth over 2020 – 2025.

GPI has realized ~\$460 million in net new product sales during 2020-2022 attributed to customer conversion to our new, innovative packaging designs. As detailed in our 2022 Annual Report on Form 10k, our cumulative investment in Research and Development for the past 3 years has totaled \$34 million, all of which contributes to developing and commercializing new innovative paperboard solutions and practices. 100% \* \$34,000,000 = \$34,000,000.

#### Comment

Graphic Packaging continues to invest in R&D and innovation across the world which is considered part of normal business practices.

# C3. Business Strategy

# C3.1

(C3.1) Does your organization's strategy include a climate transition plan that aligns with a 1.5°C world?



### Row 1

# Climate transition plan

No, but our strategy has been influenced by climate-related risks and opportunities, and we are developing a climate transition plan within two years

# Explain why your organization does not have a climate transition plan that aligns with a 1.5°C world and any plans to develop one in the future

Graphic Packaging has a history of setting and meeting GHG emission reduction targets and improving our energy efficiency; however, the company was not prepared to develop a 1.5C aligned transition plan until now. Currently our energy demand is met using ~64% renewable biomass fuel sources. We have completed a climate risk analysis and are in the process of developing Science Based targets that will inform our development of a transition plan aligned with a 1.5C world.

# C3.2

# (C3.2) Does your organization use climate-related scenario analysis to inform its strategy?

	Use of climate-related scenario analysis to inform strategy	
Row 1	Yes, qualitative and quantitative	

# C3.2a

# (C3.2a) Provide details of your organization's use of climate-related scenario analysis.

Climate- related scenario	Scenario analysis coverage	Temperature alignment of scenario	Parameters, assumptions, analytical choices
Physical	Business		GPI uses WRI Aqueduct Water Risk Atlas 3.0 for modeling water availability scenarios for all our
climate	division		operating sites. The model evaluates potential water risk in 2030 and 2040 under different climate and
scenarios			development scenarios – optimistic, business as usual (BAU), and pessimistic. We evaluated future
RCP 4.5			water risk using the water stress indicator, and current water risk using baseline water stress and



baseline water depletion indicators.

Parameters: WRI uses the general circulation models from the CMIP Phase 5 project and socioeconomic variables based on the SSP database from the International Institute for Applied Systems Analysis. SSPs consider population, GDP, and urbanization. The models also consider changing climate phenomena, economic development, and policy.

Assumptions: The optimistic scenario uses SSP2 and RCP4.5 to model future water stress. RCP4.5 assumes emissions will stabilize at ~650 ppm CO2 and temperatures will rise to 1.1–2.6°C by 2100. SS2 assumes higher GDP growth, lower population growth, and a higher rate of urbanization than the SS3 scenario.

Analytical Choices: The RCP4.5/SS2 scenario is applied at the company level and does not account for GPI's value chain. The time horizons covered include 2030 and 2040.

This analysis identifies regions where water stress may impact current and/or future site operations and provides input for developing site specific water management strategies to protect future site operations. 2030 and 2040 analysis time periods are consistent with expected operating timelines for our facilities and long-term capital planning for future investments. Currently 18 sites (0.22% of GPI's water withdrawals) are in basins with modeled high or extremely high baseline water stress. Only 2 sites (0.02% of GPI's water withdrawals), are in basins with high or extremely high baseline water depletion. This aligns with expectations, as water stress examines the ratio of withdrawals to availability, while water depletion examines the ratio of consumption to availability. In the 2030 and 2040 BAU forward-looking scenarios, the number of sites in basins of high or extremely high water stress increases to 35 and 34 (representing 2.92% of GPI's water withdrawals). Scenario results are shared with leadership to inform water management strategies.

Water stress is local. Models predicting stress does not mean there is actual risk for a facility. Currently there is no significant water risk to GPI operations.



Physical	Business	GPI uses WRI Aqueduct Water Risk Atlas 3.0 for modeling water availability scenarios for all our	
climate	division	operating sites. The model evaluates potential water risk in 2030 and 2040 under different climate a	and
scenarios		development scenarios - optimistic, business as usual (BAU), and pessimistic. We evaluated future	<b>)</b>
RCP 8.5		water risk using the water stress indicator, and current water risk using baseline water stress and	
		baseline water depletion indicators.	
		Parameters: WRI uses the general circulation models from the CMIP Phase 5 project and	
		socioeconomic variables based on the SSP database from the International Institute for Applied	
		Systems Analysis. SSPs consider population, GDP, and urbanization. The models also consider	
		changing climate phenomena, economic development, and policy.	
		Assumptions: The BAU scenario uses SSP2 and RCP8.5 to model future water risk. RCP8.5 assum	nes
		emissions will reach ~1370 ppm by 2100 and global mean temperatures will increase 2.6–4.8°C rel	ative
		to 1986–2005. SS2 assumes higher GDP growth, lower population growth, and a higher rate of	
		urbanization than SS3.	
		Analytical Choices: The RCP8.5/SS2 scenario is applied at the company level and does not account	ıt for
		GPI's value chain. The time horizons covered are 2030 and 2040.	
		This analysis identifies regions where water stress may impact current and/or future site operations	and
		provides input for developing site specific water management strategies to protect future site	
		operations. 2030 and 2040 analysis time periods are consistent with expected operating timelines for	or
		our facilities and long-term capital planning for future investments. Currently 18 sites (0.22% of GPI	's
		water withdrawals) are in basins with modeled high or extremely high baseline water stress. Only 2	
		sites (0.02% of GPI's water withdrawals), are in basins with high or extremely high baseline water	
		depletion. This aligns with expectations, as water stress examines the ratio of withdrawals to	
		availability, while water depletion examines the ratio of consumption to availability. In the 2030 and	
		2040 BAU forward-looking scenarios, the number of sites in basins of high or extremely high water	
		stress increases to 35 and 34 (representing 2.92% of GPI's water withdrawals). Scenario results are	Э
		shared with leadership to inform water management strategies.	



	Water stress is local. Models predicting stress does not mean there is actual risk for a facility. Currently there is no significant water risk to GPI operations.
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# C3.2b

(C3.2b) Provide details of the focal questions your organization seeks to address by using climate-related scenario analysis, and summarize the results with respect to these questions.

#### Row 1

#### **Focal questions**

Key focal questions that provide direction to Graphic Packaging's climate-related scenario analysis include:

- Are our mills (our most water-intensive facilities) in areas of water stress today? Will they be located in areas of water stress in the future, and what is the associated time horizon?
- How will increasing water stress impact our operations in mills that are located in areas of high or very high water stress?
- What actions can we take to mitigate or respond to increasing water stress in areas where we have mill operations?
- What is the timeline associated with the actions we should take to mitigate or respond to increasing water stress in areas where we have mill operations?
- What are the most material potential risks that increasing water stress poses to our mill operations, and how can we respond?
- How does water stress impact future investments in new facilities, such as the newly announced Waco, TX CRB mill?

Results of the climate-related scenario analysis with respect to the focal questions



Results from scenario analyses such as WRI's Water Risk Atlas tool are shared with mills operations leadership. The results include which facilities are located in areas of high or very high baseline water stress and depletion, and which facilities may be located in areas of high or very high water stress in 2030 and/or 2040. These results enable mills operations leadership to evaluate potential impacts of increasing water stress, such as reduced output or increased costs. Results of the scenario analysis also enable mills leadership to evaluate water stewardship strategies, engagement plans with local water stakeholders and water management needs, and associated timeframes. Finally, the results of this analysis can be used as an input when Graphic Packaging screens locations for new facility investments, to ensure adequate water supply will be available during the operating life of the facility.

# C3.3

#### (C3.3) Describe where and how climate-related risks and opportunities have influenced your strategy.

	Have climate-related risks and opportunities influenced your strategy in this area?	Description of influence
Products and services	Yes	Graphic Packaging has determined that our products and services have been impacted based on our evaluation of climate-related risks and opportunities. Graphic Packaging manufactures and sells paperboard packaging. This packaging is made from renewable tree-fiber materials, and virtually all can be recycled. Approximately 64% of energy used to make the paperboard packaging is renewable energy generated using biomass. When comparing the environmental profile of paperboard packaging with other packaging formats like plastic, glass, and metal, paperboard packaging can present a lower GHG emissions footprint as measured by ISO Life Cycle assessment methodologies. We integrate sustainability thinking throughout our product innovation process using a Design for the Environment (DfE) approach. With DfE, we consider how to reduce or remove environmental impacts from the beginning to the end of a product's life. In our Vision 2025, we have targeted \$400 - \$700 million in revenue generated from the sale of new innovative packaging. These sales will be predominately from innovative packaging solutions that provide a sustainability benefit to the marketplace. As an example, in 2022 we saw significant success and expanding adoption of our hybrid tray solution, PaperSeal TM . Designed for food applications where plastic cannot easily be eliminated due to the need for a hermetic seal or oxygen barrier to extend shelf-life, PaperSeal reduces plastic by up to 90 percent versus



		traditional trays. In addition, the paperboard portion of the tray can be easily separated from the liner for easy recycling of the paper tray by the consumer.
Supply chain and/or value chain	Yes	Graphic Packaging has determined that our supply chain has been impacted for some suppliers, facilities, or product lines based on our evaluation of climate-related risks and opportunities. For example, we understand that there are limitations on the availability of, and increases in, the costs of raw materials, including secondary fiber, petroleum-based materials, energy, wood, transportation, and other necessary goods and services which could impact the reliability of our supply chain. Because negotiated sales contracts and the market largely determine the pricing for its products, the Company is at times limited in its ability to raise prices and pass through any inflationary or other cost increases that the Company may incur to its customers. Therefore, we have established processes that enable us to work closely with our suppliers to ensure that we're being proactive in identifying any risks that could impact our supply chain and mitigate risks where possible. Wood fiber is a critical raw material to the company's process. Graphic Packaging's long-range planning process, which typically looks 3-5 years into the future, assesses forest-related risks and opportunities by evaluating macro influences on its woodbasket. These influences can be shifts in market demand from local, national and international demand patterns based on climate change or other reactions related to climate change by working with an external party to model scenarios. For example, to accomplish the UK's carbon reduction goals, many utilities have transitioned from electricity generated by coal to energy generated by biomass sources. Certain UK utilities source wood from the United States which also impacts the overall supply of this raw material. We have communicated to the EU and UK governments that subsidy of biomass energy can have a detrimental impact on business and could result in higher costs for UK and EU customers for paperboard products. The company has conducted woodbasket assessments to predict the impact of the government su
Investment in R&D	Yes	Graphic Packaging has determined that investment in R&D has been impacted based on our evaluation of climate-related risks and opportunities. We understand that there are reputational risks based on consumer preferences for packaging made from renewable materials. There has been increasing evidence of this shift through public statements made by buyers of packaging, including food, beverage, and foodservice companies. Therefore, Graphic Packaging continues to engage in research and



		development activities that seek to identify technologies that would allow for alternative packaging for liquid and food products to replace plastic. Additionally, we seek to invest resources for the research and development of any efficient technologies that could be utilized in our manufacturing processes to be more efficient. In our Vision 2025, we have targeted \$400 - \$700 million over the period of 2020 − 2025 in net new product sales for our innovation efforts. Graphic Packaging continues to invest in R&D as reflected in our financial reports showing an increased investment year on year. Throughout 2022 we have continued to develop products which look to have a positive environmental impact. We are focusing on providing fiber-based solutions to the problems surrounding single-use plastics. Example products we have commercialized include KeelClip™, Cap-It™, and EnviroClip™ beverage packaging solutions, PaperSeal™, ProducePack™, and Boardio™ food packaging solutions, the Ecotainer™ and OptiCycle™ foodservice solutions, and the ZFlute™ and IntegraFlute™ strength packaging solutions. These products are a representative sample of the many sustainable packaging solutions our innovation teams are developing that are expected to deliver \$400 - \$700 million in organic revenue growth over 2020 − 2025.  GPI has realized ~\$460 million in net new product sales during 2020-2022 attributed to customer conversion to our new, innovative packaging designs. As detailed in our 2022 Annual Report on Form 10-K, our cumulative investment in R&D for the past 3 years has totaled \$34 million, all of which contributes to developing and commercializing new innovative paperboard solutions and practices. As demonstrated in this response, the Company has a strong innovation pipeline with new technologies that are designed to benefit the environment and positioned to meet market expectations.
Operations	Yes	As a company, we're always striving to improve our resource efficiency at each facility. Each year we identified improvement opportunities and incorporated them, where appropriate, in either our annual budgeting process or multi-year capital plan. We understand that improvements in our processes will lead to a reduction in both energy consumption and GHG emissions. This helps protect our company against risks such as rising energy prices and carbon taxes, and also positions us to realize business opportunities with customers focused on reducing their supply chain carbon footprint. In 2021 we mechanically completed the installation of a new world-class Coated Recycled Board (CRB) machine in our Kalamazoo, MI site and successfully began operating the site at design capacity during 2022. The \$600+ million investment will have a positive environmental impact by reducing annual global



greenhouse gas emissions, water, and purchased energy intensities. The Company expects the
investment will enable it to eliminate higher cost, more resource intensive production at other facilities
and will deliver incremental growth in annualized EBITDA. The company is also investing in upgrading
several coating machines to higher efficiency curtain coater machines. As demonstrated in this
response, the Company has a strong innovation pipeline with new manufacturing process technologies
that are designed to benefit the environment and positioned to meet market expectations.

# C3.4

# (C3.4) Describe where and how climate-related risks and opportunities have influenced your financial planning.

	Financial planning elements that have been influenced	Description of influence
Row 1	Revenues	Graphic Packaging has evaluated how revenues are impacted by climate-related risks and opportunities in relation to our organization's business, strategy, and financial planning. For example, our Company's research and development team works directly with its sales, marketing, and consumer insights personnel to understand long-term consumer and retailer trends and create relevant new packaging. These innovative solutions provide customers with differentiated packaging to meet customer needs. The Company's development efforts include, but are not limited to: extending the shelf life of customers' products; reducing production and waste costs; enhancing the heat-managing characteristics of food packaging; improving the sturdiness and compression strength of packaging to meet store display needs; and refining packaging appearance through new printing techniques and materials. Circular economy business models and packaging waste reduction represents one of the strongest trends in the packaging industry and the Company focuses on developing more sustainable manufacturing processes and products. In our 2025 Vision we have targeted revenue growth through new product innovations of \$400 - \$700 million during the period 2020 – 2025.  Case Study:  Situation: Customers are looking to lessen the environmental impact of their packaging following the reduce, reuse, recycle approach as they evolve their packaging design and materials selection. Graphic Packaging is well positioned, as
		a wood fiber-based packaging company, to be a solution provider to respond to these growing external pressures.



Task: Graphic Packaging is committed to sustainable innovation and has allocated investments both in terms of research and development as well as capital allocation to ensure that we have the appropriate resources to develop packaging solutions that will improve the environmental metrics of our customers' products. We keep abreast of consumer expectations to ensure that we're meeting preferences as they continue to shift towards more sustainable packaging. Action: We have established 8 R&D innovation centers in the US and the EU and have expanded our packaging innovation "toolset" as part of our 2021 acquisition of AR Packaging. Over the past several years, our SVP, Global Innovation and New Business Development has restructured our R&D and marketing teams to improve market sensing capabilities as well as foster collaboration, ideation, and leveraging solutions from one global region to another. We have invested in innovation, research and development, and digital capabilities to allow us to capture sustainability supported organic growth. Throughout 2022 we have continued to develop products which look to have a positive environmental impact. We are focusing on providing fiber-based solutions to the problems surrounding single-use plastics. Example products we have commercialized include: KeelClip™, Cap-It™, and EnviroClip™ beverage packaging solutions, PaperSeal™, ProducePack™ and Boardio™ food packaging solutions, the Ecotainer™ and OptiCycle™ foodservice solutions, and the ZFlute™ and IntegraFlute™ strength packaging solutions.

Result: These products are a representative sample of the many sustainable packaging solutions our innovation teams are developing that are expected to deliver \$400 - \$700 million in revenue growth over 2020 – 2025. Graphic Packaging has realized ~\$460 million in net new product sales during 2020-2022 attributed to customer conversion to our new, innovative packaging designs.

As demonstrated in this response, the Company has a strong innovation pipeline with new technologies that are designed to benefit the Environment and positioned to meet market expectations.

# C3.5

# (C3.5) In your organization's financial accounting, do you identify spending/revenue that is aligned with your organization's climate transition?

	Identification of spending/revenue that is aligned with your organization's climate transition	
Row 1	No, but we plan to in the next two years	



# **C4.** Targets and performance

# C4.1

(C4.1) Did you have an emissions target that was active in the reporting year?

Absolute target Intensity target

# C4.1a

(C4.1a) Provide details of your absolute emissions target(s) and progress made against those targets.

#### Target reference number

Abs 1

#### Is this a science-based target?

No, but we anticipate setting one in the next two years

**Target ambition** 

Year target was set

2017

#### **Target coverage**

Company-wide

#### Scope(s)

Scope 1



Scope 2

#### Scope 2 accounting method

Market-based

Scope 3 category(ies)

Base year

2016

Base year Scope 1 emissions covered by target (metric tons CO2e)

1,257,469

Base year Scope 2 emissions covered by target (metric tons CO2e)

793,037

Base year Scope 3, Category 1: Purchased goods and services emissions covered by target (metric tons CO2e)

Base year Scope 3, Category 2: Capital goods emissions covered by target (metric tons CO2e)

Base year Scope 3, Category 3: Fuel-and-energy-related activities (not included in Scopes 1 or 2) emissions covered by target (metric tons CO2e)

Base year Scope 3, Category 4: Upstream transportation and distribution emissions covered by target (metric tons CO2e)

Base year Scope 3, Category 5: Waste generated in operations emissions covered by target (metric tons CO2e)



Base year Scope 3, Category 6: Business travel emissions covered by target (metric tons CO2e)

Base year Scope 3, Category 7: Employee commuting emissions covered by target (metric tons CO2e)

Base year Scope 3, Category 8: Upstream leased assets emissions covered by target (metric tons CO2e)

Base year Scope 3, Category 9: Downstream transportation and distribution emissions covered by target (metric tons CO2e)

Base year Scope 3, Category 10: Processing of sold products emissions covered by target (metric tons CO2e)

Base year Scope 3, Category 11: Use of sold products emissions covered by target (metric tons CO2e)

Base year Scope 3, Category 12: End-of-life treatment of sold products emissions covered by target (metric tons CO2e)

Base year Scope 3, Category 13: Downstream leased assets emissions covered by target (metric tons CO2e)

Base year Scope 3, Category 14: Franchises emissions covered by target (metric tons CO2e)

Base year Scope 3, Category 15: Investments emissions covered by target (metric tons CO2e)

Base year Scope 3, Other (upstream) emissions covered by target (metric tons CO2e)



Base year Scope 3, Other (downstream) emissions covered by target (metric tons CO2e)

Base year total Scope 3 emissions covered by target (metric tons CO2e)

Total base year emissions covered by target in all selected Scopes (metric tons CO2e) 2,050,507

Base year Scope 1 emissions covered by target as % of total base year emissions in Scope 1

Base year Scope 2 emissions covered by target as % of total base year emissions in Scope 2

Base year Scope 3, Category 1: Purchased goods and services emissions covered by target as % of total base year emissions in Scope 3, Category 1: Purchased goods and services (metric tons CO2e)

Base year Scope 3, Category 2: Capital goods emissions covered by target as % of total base year emissions in Scope 3, Category 2: Capital goods (metric tons CO2e)

Base year Scope 3, Category 3: Fuel-and-energy-related activities (not included in Scopes 1 or 2) emissions covered by target as % of total base year emissions in Scope 3, Category 3: Fuel-and-energy-related activities (not included in Scopes 1 or 2) (metric tons CO2e)

Base year Scope 3, Category 4: Upstream transportation and distribution covered by target as % of total base year emissions in Scope 3, Category 4: Upstream transportation and distribution (metric tons CO2e)



Base year Scope 3, Category 5: Waste generated in operations emissions covered by target as % of total base year emissions in Scope 3, Category 5: Waste generated in operations (metric tons CO2e)

Base year Scope 3, Category 6: Business travel emissions covered by target as % of total base year emissions in Scope 3, Category 6: Business travel (metric tons CO2e)

Base year Scope 3, Category 7: Employee commuting covered by target as % of total base year emissions in Scope 3, Category 7: Employee commuting (metric tons CO2e)

Base year Scope 3, Category 8: Upstream leased assets emissions covered by target as % of total base year emissions in Scope 3, Category 8: Upstream leased assets (metric tons CO2e)

Base year Scope 3, Category 9: Downstream transportation and distribution emissions covered by target as % of total base year emissions in Scope 3, Category 9: Downstream transportation and distribution (metric tons CO2e)

Base year Scope 3, Category 10: Processing of sold products emissions covered by target as % of total base year emissions in Scope 3, Category 10: Processing of sold products (metric tons CO2e)

Base year Scope 3, Category 11: Use of sold products emissions covered by target as % of total base year emissions in Scope 3, Category 11: Use of sold products (metric tons CO2e)

Base year Scope 3, Category 12: End-of-life treatment of sold products emissions covered by target as % of total base year emissions in Scope 3, Category 12: End-of-life treatment of sold products (metric tons CO2e)



Base year Scope 3, Category 13: Downstream leased assets emissions covered by target as % of total base year emissions in Scope 3, Category 13: Downstream leased assets (metric tons CO2e)

Base year Scope 3, Category 14: Franchises emissions covered by target as % of total base year emissions in Scope 3, Category 14: Franchises (metric tons CO2e)

Base year Scope 3, Category 15: Investments emissions covered by target as % of total base year emissions in Scope 3, Category 15: Investments (metric tons CO2e)

Base year Scope 3, Other (upstream) emissions covered by target as % of total base year emissions in Scope 3, Other (upstream) (metric tons CO2e)

Base year Scope 3, Other (downstream) emissions covered by target as % of total base year emissions in Scope 3, Other (downstream) (metric tons CO2e)

Base year total Scope 3 emissions covered by target as % of total base year emissions in Scope 3 (in all Scope 3 categories)

Base year emissions covered by target in all selected Scopes as % of total base year emissions in all selected Scopes 100

# Target year

2025

Targeted reduction from base year (%)

10



Total emissions in target year covered by target in all selected Scopes (metric tons CO2e) [auto-calculated] 1,845,456.3

Scope 1 emissions in reporting year covered by target (metric tons CO2e) 1,626,876

Scope 2 emissions in reporting year covered by target (metric tons CO2e) 828,431

Scope 3, Category 1: Purchased goods and services emissions in reporting year covered by target (metric tons CO2e)

Scope 3, Category 2: Capital goods emissions in reporting year covered by target (metric tons CO2e)

Scope 3, Category 3: Fuel-and-energy-related activities (not included in Scopes 1 or 2) emissions in reporting year covered by target (metric tons CO2e)

Scope 3, Category 4: Upstream transportation and distribution emissions in reporting year covered by target (metric tons CO2e)

Scope 3, Category 5: Waste generated in operations emissions in reporting year covered by target (metric tons CO2e)

Scope 3, Category 6: Business travel emissions in reporting year covered by target (metric tons CO2e)

Scope 3, Category 7: Employee commuting emissions in reporting year covered by target (metric tons CO2e)

Scope 3, Category 8: Upstream leased assets emissions in reporting year covered by target (metric tons CO2e)



Scope 3, Category 9: Downstream transportation and distribution emissions in reporting year covered by target (metric tons CO2e)

Scope 3, Category 10: Processing of sold products emissions in reporting year covered by target (metric tons CO2e)

Scope 3, Category 11: Use of sold products emissions in reporting year covered by target (metric tons CO2e)

Scope 3, Category 12: End-of-life treatment of sold products emissions in reporting year covered by target (metric tons CO2e)

Scope 3, Category 13: Downstream leased assets emissions in reporting year covered by target (metric tons CO2e)

Scope 3, Category 14: Franchises emissions in reporting year covered by target (metric tons CO2e)

Scope 3, Category 15: Investments emissions in reporting year covered by target (metric tons CO2e)

Scope 3, Other (upstream) emissions in reporting year covered by target (metric tons CO2e)

Scope 3, Other (downstream) emissions in reporting year covered by target (metric tons CO2e)

Total Scope 3 emissions in reporting year covered by target (metric tons CO2e)



#### Total emissions in reporting year covered by target in all selected scopes (metric tons CO2e)

2,455,307

#### Does this target cover any land-related emissions?

No, it does not cover any land-related emissions (e.g. non-FLAG SBT)

#### % of target achieved relative to base year [auto-calculated]

-197.4145906354

#### Target status in reporting year

Underway

#### Please explain target coverage and identify any exclusions

Graphic Packaging reported this target to CDP in 2018 and is reporting progress against the same target in 2022. Graphic Packaging acquired AR Packaging and Americant in 2021. The resulting full-year emissions were less than 5% of Graphic Packaging's total Scope 1&2 emissions. Since this did not meet Graphic Packaging's threshold for rebaselining, the 2016 emissions remain unchanged, contributing to negative progress against the company's emission reduction target.

#### Plan for achieving target, and progress made to the end of the reporting year

To achieve this target, Graphic Packaging is investing in energy efficiency and renewable energy projects. This year, we commissioned our new Coated Recycled Board (CRB) machine in our Kalamazoo, MI site, which will reduce global greenhouse gas emissions and energy use. In addition, we are exploring opportunities to increase the use of biomass energy in our virgin mills and optimize the CRB manufacturing circuit to shift production to more efficient, lower intensity mills.

List the emissions reduction initiatives which contributed most to achieving this target

# C4.1b

(C4.1b) Provide details of your emissions intensity target(s) and progress made against those target(s).



#### Target reference number

Int 1

# Is this a science-based target?

No, but we anticipate setting one in the next two years

#### **Target ambition**

#### Year target was set

2017

# **Target coverage**

Company-wide

# Scope(s)

Scope 1

Scope 2

# **Scope 2 accounting method**

Market-based

# Scope 3 category(ies)

#### **Intensity metric**

Metric tons CO2e per unit revenue

# Base year

2016

# Intensity figure in base year for Scope 1 (metric tons CO2e per unit of activity)

0.000292564



Intensity figure in base year for Scope 2 (metric tons CO2e per unit of activity) 0.000184509

Intensity figure in base year for Scope 3, Category 1: Purchased goods and services (metric tons CO2e per unit of activity)

Intensity figure in base year for Scope 3, Category 2: Capital goods (metric tons CO2e per unit of activity)

Intensity figure in base year for Scope 3, Category 3: Fuel-and-energy-related activities (not included in Scopes 1 or 2) (metric tons CO2e per unit of activity)

Intensity figure in base year for Scope 3, Category 4: Upstream transportation and distribution (metric tons CO2e per unit of activity)

Intensity figure in base year for Scope 3, Category 5: Waste generated in operations (metric tons CO2e per unit of activity)

Intensity figure in base year for Scope 3, Category 6: Business travel (metric tons CO2e per unit of activity)

Intensity figure in base year for Scope 3, Category 7: Employee commuting (metric tons CO2e per unit of activity)

Intensity figure in base year for Scope 3, Category 8: Upstream leased assets (metric tons CO2e per unit of activity)

Intensity figure in base year for Scope 3, Category 9: Downstream transportation and distribution (metric tons CO2e per unit of activity)



Intensity figure in base year for Scope 3, Category 10: Processing of sold products (metric tons CO2e per unit of activity)

Intensity figure in base year for Scope 3, Category 11: Use of sold products (metric tons CO2e per unit of activity)

Intensity figure in base year for Scope 3, Category 12: End-of-life treatment of sold products (metric tons CO2e per unit of activity)

Intensity figure in base year for Scope 3, Category 13: Downstream leased assets (metric tons CO2e per unit of activity)

Intensity figure in base year for Scope 3, Category 14: Franchises (metric tons CO2e per unit of activity)

Intensity figure in base year for Scope 3, Category 15: Investments (metric tons CO2e per unit of activity)

Intensity figure in base year for Scope 3, Other (upstream) (metric tons CO2e per unit of activity)

Intensity figure in base year for Scope 3, Other (downstream) (metric tons CO2e per unit of activity)

Intensity figure in base year for total Scope 3 (metric tons CO2e per unit of activity)

Intensity figure in base year for all selected Scopes (metric tons CO2e per unit of activity) 0.000477073

% of total base year emissions in Scope 1 covered by this Scope 1 intensity figure 100



% of total base year emissions in Scope 2 covered by this Scope 2 intensity figure 100

% of total base year emissions in Scope 3, Category 1: Purchased goods and services covered by this Scope 3, Category 1: Purchased goods and services intensity figure

% of total base year emissions in Scope 3, Category 2: Capital goods covered by this Scope 3, Category 2: Capital goods intensity figure

% of total base year emissions in Scope 3, Category 3: Fuel-and-energy-related activities (not included in Scopes 1 or 2) covered by this Scope 3, Category 3: Fuel-and-energy-related activities (not included in Scopes 1 or 2) intensity figure

% of total base year emissions in Scope 3, Category 4: Upstream transportation and distribution covered by this Scope 3, Category 4: Upstream transportation and distribution intensity figure

% of total base year emissions in Scope 3, Category 5: Waste generated in operations covered by this Scope 3, Category 5: Waste generated in operations intensity figure

% of total base year emissions in Scope 3, Category 6: Business travel covered by this Scope 3, Category 6: Business travel intensity figure

% of total base year emissions in Scope 3, Category 7: Employee commuting covered by this Scope 3, Category 7: Employee commuting intensity figure



% of total base year emissions in Scope 3, Category 8: Upstream leased assets covered by this Scope 3, Category 8: Upstream leased assets intensity figure

% of total base year emissions in Scope 3, Category 9: Downstream transportation and distribution covered by this Scope 3, Category 9: Downstream transportation and distribution intensity figure

% of total base year emissions in Scope 3, Category 10: Processing of sold products covered by this Scope 3, Category 10: Processing of sold products intensity figure

% of total base year emissions in Scope 3, Category 11: Use of sold products covered by this Scope 3, Category 11: Use of sold products intensity figure

% of total base year emissions in Scope 3, Category 12: End-of-life treatment of sold products covered by this Scope 3, Category 12: End-of-life treatment of sold products intensity figure

% of total base year emissions in Scope 3, Category 13: Downstream leased assets covered by this Scope 3, Category 13: Downstream leased assets intensity figure

% of total base year emissions in Scope 3, Category 14: Franchises covered by this Scope 3, Category 14: Franchises intensity figure

% of total base year emissions in Scope 3, Category 15: Investments covered by this Scope 3, Category 15: Investments intensity figure



% of total base year emissions in Scope 3, Other (upstream) covered by this Scope 3, Other (upstream) intensity figure

% of total base year emissions in Scope 3, Other (downstream) covered by this Scope 3, Other (downstream) intensity figure

% of total base year emissions in Scope 3 (in all Scope 3 categories) covered by this total Scope 3 intensity figure

% of total base year emissions in all selected Scopes covered by this intensity figure 100

**Target year** 

2025

Targeted reduction from base year (%)

15

Intensity figure in target year for all selected Scopes (metric tons CO2e per unit of activity) [auto-calculated] 0.0004055121

% change anticipated in absolute Scope 1+2 emissions

-10

% change anticipated in absolute Scope 3 emissions

0

Intensity figure in reporting year for Scope 1 (metric tons CO2e per unit of activity)
0.000172339

Intensity figure in reporting year for Scope 2 (metric tons CO2e per unit of activity)



Intensity figure in reporting year for Scope 3, Category 1: Purchased goods and services (metric tons CO2e per unit of activity)

Intensity figure in reporting year for Scope 3, Category 2: Capital goods (metric tons CO2e per unit of activity)

Intensity figure in reporting year for Scope 3, Category 3: Fuel-and-energy-related activities (not included in Scopes 1 or 2) (metric tons CO2e per unit of activity)

Intensity figure in reporting year for Scope 3, Category 4: Upstream transportation and distribution (metric tons CO2e per unit of activity)

Intensity figure in reporting year for Scope 3, Category 5: Waste generated in operations (metric tons CO2e per unit of activity)

Intensity figure in reporting year for Scope 3, Category 6: Business travel (metric tons CO2e per unit of activity)

Intensity figure in reporting year for Scope 3, Category 7: Employee commuting (metric tons CO2e per unit of activity)

Intensity figure in reporting year for Scope 3, Category 8: Upstream leased assets (metric tons CO2e per unit of activity)

Intensity figure in reporting year for Scope 3, Category 9: Downstream transportation and distribution (metric tons CO2e per unit of activity)



Intensity figure in reporting year for Scope 3, Category 10: Processing of sold products (metric tons CO2e per unit of activity)

Intensity figure in reporting year for Scope 3, Category 11: Use of sold products (metric tons CO2e per unit of activity)

Intensity figure in reporting year for Scope 3, Category 12: End-of-life treatment of sold products (metric tons CO2e per unit of activity)

Intensity figure in reporting year for Scope 3, Category 13: Downstream leased assets (metric tons CO2e per unit of activity)

Intensity figure in reporting year for Scope 3, Category 14: Franchises (metric tons CO2e per unit of activity)

Intensity figure in reporting year for Scope 3, Category 15: Investments (metric tons CO2e per unit of activity)

Intensity figure in reporting year for Scope 3, Other (upstream) (metric tons CO2e per unit of activity)

Intensity figure in reporting year for Scope 3, Other (downstream) (metric tons CO2e per unit of activity)

Intensity figure in reporting year for total Scope 3 (metric tons CO2e per unit of activity)

Intensity figure in reporting year for all selected Scopes (metric tons CO2e per unit of activity) 0.000260096

#### Does this target cover any land-related emissions?

No, it does not cover any land-related emissions (e.g. non-FLAG SBT)



#### % of target achieved relative to base year [auto-calculated]

303.2058685638

#### Target status in reporting year

Achieved

#### Please explain target coverage and identify any exclusions

Graphic Packaging acquired AR Packaging and Americarft in 2021. The resulting full-year emissions were less than 5% of Graphic Packaging's total Scope 1&2 emissions. Since this did not meet Graphic Packaging's threshold for rebaselining, the 2016 emissions remain unchanged.

#### Plan for achieving target, and progress made to the end of the reporting year

#### List the emissions reduction initiatives which contributed most to achieving this target

The most significant driver for achieving this target was revenue growth through expansion of less energy-intensive packaging operations, such as our new Coated Recycled Board (CRB) machine in our Kalamazoo, MI site and expansion of our packaging operations. In addition, market drivers such as continued product demand for plastic packaging alternatives and favorable product pricing led to a reduction in Graphic Packaging's emissions intensity.

# C4.2

### (C4.2) Did you have any other climate-related targets that were active in the reporting year?

Other climate-related target(s)

# C4.2b

(C4.2b) Provide details of any other climate-related targets, including methane reduction targets.

#### Target reference number

Oth 1



#### Year target was set

2017

#### **Target coverage**

Company-wide

#### Target type: absolute or intensity

Intensity

#### Target type: category & Metric (target numerator if reporting an intensity target)

Energy consumption or efficiency million Btu

#### Target denominator (intensity targets only)

Other, please specify per \$1000 sales

#### Base year

2016

# Figure or percentage in base year

6.565789212

# **Target year**

2025

# Figure or percentage in target year

5.58092083

# Figure or percentage in reporting year

3.69569479

% of target achieved relative to base year [auto-calculated]



291.419084464

#### Target status in reporting year

Achieved

#### Is this target part of an emissions target?

No

#### Is this target part of an overarching initiative?

No, it's not part of an overarching initiative

#### Please explain target coverage and identify any exclusions

Graphic Packaging is targeting a reduction in company-wide non-renewable energy use intensity by 15% (MMBTU/ \$1,000 sales) in 2025 compared to 2016. Graphic Packaging's intensity has reduced by 44% compared to the base year.

#### Plan for achieving target, and progress made to the end of the reporting year

#### List the actions which contributed most to achieving this target

The most significant driver for achieving this target was revenue growth through expansion of less energy-intensive packaging operations, such as our new Coated Recycled Board (CRB) machine in our Kalamazoo, MI site and the expansion of our packaging operations. In addition, market drivers such as continued product demand for plastic packaging alternatives and favorable product pricing led to a reduction in Graphic Packaging's energy consumption per revenue intensity.

# C4.3

(C4.3) Did you have emissions reduction initiatives that were active within the reporting year? Note that this can include those in the planning and/or implementation phases.

Yes



# C4.3a

# (C4.3a) Identify the total number of initiatives at each stage of development, and for those in the implementation stages, the estimated CO2e savings.

	Number of initiatives	Total estimated annual CO2e savings in metric tonnes CO2e (only for rows marked *)
Under investigation	0	0
To be implemented*	3	71,676
Implementation commenced*	12	77,394
Implemented*	14	76,645
Not to be implemented	0	0

# C4.3b

(C4.3b) Provide details on the initiatives implemented in the reporting year in the table below.

#### **Initiative category & Initiative type**

Energy efficiency in buildings
Other, please specify
Machine/equipment replacement

#### Estimated annual CO2e savings (metric tonnes CO2e)

63

# Scope(s) or Scope 3 category(ies) where emissions savings occur

Scope 2 (location-based) Scope 2 (market-based)



#### **Voluntary/Mandatory**

Voluntary

Annual monetary savings (unit currency – as specified in C0.4)

Investment required (unit currency – as specified in C0.4)

Payback period

Estimated lifetime of the initiative

#### Comment

Changed transformers

# Initiative category & Initiative type

Energy efficiency in buildings Other, please specify Waste heat recovery

Estimated annual CO2e savings (metric tonnes CO2e)

24

Scope(s) or Scope 3 category(ies) where emissions savings occur

Scope 1

# **Voluntary/Mandatory**

Voluntary



#### Annual monetary savings (unit currency – as specified in C0.4)

Investment required (unit currency – as specified in C0.4)

#### Payback period

#### Estimated lifetime of the initiative

#### Comment

Installation of a new heating system in 2022.

Energy management estimated a gas saving of 20% with the new heating system.

# Initiative category & Initiative type

Energy efficiency in buildings
Other, please specify
Machine/equipment replacement

### Estimated annual CO2e savings (metric tonnes CO2e)

138

### Scope(s) or Scope 3 category(ies) where emissions savings occur

Scope 2 (location-based) Scope 2 (market-based)

# **Voluntary/Mandatory**

Voluntary



Annual monetary savings (unit currency – as specified in C0.4)

Investment required (unit currency – as specified in C0.4)

Payback period

Estimated lifetime of the initiative

#### Comment

LED lighting installed across site+ Motion sensors on office lighting, quality lab, and day / night sensors in warehouse tents.

#### Initiative category & Initiative type

Energy efficiency in buildings Other, please specify Compressed air

Estimated annual CO2e savings (metric tonnes CO2e)

64

Scope(s) or Scope 3 category(ies) where emissions savings occur

Scope 1

**Voluntary/Mandatory** 

Voluntary

Annual monetary savings (unit currency – as specified in C0.4)



#### Investment required (unit currency – as specified in C0.4)

#### Payback period

#### Estimated lifetime of the initiative

#### Comment

Installation of a new compressed air compressor with heat recovery which contributes to the central heating of the building.

#### Initiative category & Initiative type

Energy efficiency in buildings
Other, please specify
Machine/equipment replacement

# Estimated annual CO2e savings (metric tonnes CO2e)

-

#### Scope(s) or Scope 3 category(ies) where emissions savings occur

Scope 2 (location-based) Scope 2 (market-based)

# Voluntary/Mandatory

Voluntary

Annual monetary savings (unit currency – as specified in C0.4)

Investment required (unit currency – as specified in C0.4)



#### Payback period

#### Estimated lifetime of the initiative

#### Comment

Switching fluorescent lights to LED lights.

#### **Initiative category & Initiative type**

Energy efficiency in production processes Process optimization

#### Estimated annual CO2e savings (metric tonnes CO2e)

72

#### Scope(s) or Scope 3 category(ies) where emissions savings occur

Scope 1

Scope 2 (location-based)

Scope 2 (market-based)

#### **Voluntary/Mandatory**

Voluntary

Annual monetary savings (unit currency – as specified in C0.4)

Investment required (unit currency – as specified in C0.4)



#### Payback period

#### Estimated lifetime of the initiative

#### Comment

Reconstruction solvents recovery system (replacement activated carbon).

#### Initiative category & Initiative type

Energy efficiency in production processes Process optimization

# Estimated annual CO2e savings (metric tonnes CO2e)

130

# Scope(s) or Scope 3 category(ies) where emissions savings occur

Scope 2 (location-based) Scope 2 (market-based)

#### **Voluntary/Mandatory**

Voluntary

Annual monetary savings (unit currency – as specified in C0.4)

Investment required (unit currency – as specified in C0.4)

#### Payback period



#### Estimated lifetime of the initiative

#### Comment

Reduction of the UV lamp power.

#### Initiative category & Initiative type

Energy efficiency in production processes Process optimization

### Estimated annual CO2e savings (metric tonnes CO2e)

40,123

Scope(s) or Scope 3 category(ies) where emissions savings occur

Scope 1

# **Voluntary/Mandatory**

Voluntary

Annual monetary savings (unit currency – as specified in C0.4)

Investment required (unit currency – as specified in C0.4)

Payback period

**Estimated lifetime of the initiative** 



#### Comment

High efficiency boiler installations.

#### **Initiative category & Initiative type**

Energy efficiency in production processes Process optimization

# Estimated annual CO2e savings (metric tonnes CO2e)

4,039

Scope(s) or Scope 3 category(ies) where emissions savings occur

Scope 1

#### **Voluntary/Mandatory**

Voluntary

Annual monetary savings (unit currency – as specified in C0.4)

Investment required (unit currency – as specified in C0.4)

Payback period

Estimated lifetime of the initiative

#### Comment

Lime kiln camera installation at West Monroe mill.



#### **Initiative category & Initiative type**

Energy efficiency in production processes Process optimization

#### Estimated annual CO2e savings (metric tonnes CO2e)

27,035

#### Scope(s) or Scope 3 category(ies) where emissions savings occur

Scope 2 (location-based) Scope 2 (market-based)

#### **Voluntary/Mandatory**

Voluntary

Annual monetary savings (unit currency – as specified in C0.4)

Investment required (unit currency – as specified in C0.4)

Payback period

Estimated lifetime of the initiative

#### Comment

Converting to VFDs and others.



## **Initiative category & Initiative type**

Energy efficiency in production processes Process optimization

## Estimated annual CO2e savings (metric tonnes CO2e)

3,210

## Scope(s) or Scope 3 category(ies) where emissions savings occur

Scope 1

## **Voluntary/Mandatory**

Voluntary

Annual monetary savings (unit currency – as specified in C0.4)

Investment required (unit currency – as specified in C0.4)

Payback period

#### Estimated lifetime of the initiative

#### Comment

Condensate polisher - capture and reuse condensate in boiler.

#### **Initiative category & Initiative type**

Transportation
Other, please specify



Freight mode of transportation shift

### Estimated annual CO2e savings (metric tonnes CO2e)

64

#### Scope(s) or Scope 3 category(ies) where emissions savings occur

Scope 3 category 4: Upstream transportation & distribution

#### **Voluntary/Mandatory**

Voluntary

Annual monetary savings (unit currency – as specified in C0.4)

Investment required (unit currency – as specified in C0.4)

Payback period

#### Estimated lifetime of the initiative

#### Comment

Optimization of transportation by mode switching from truck to rail

## Initiative category & Initiative type

Transportation
Other, please specify
Freight route change



## Estimated annual CO2e savings (metric tonnes CO2e)

1,453

### Scope(s) or Scope 3 category(ies) where emissions savings occur

Scope 3 category 4: Upstream transportation & distribution

### Voluntary/Mandatory

Voluntary

Annual monetary savings (unit currency – as specified in C0.4)

Investment required (unit currency – as specified in C0.4)

Payback period

#### Estimated lifetime of the initiative

#### Comment

Optimization of transportation by adding a new trade lane from West Monroe to New Orleans.

## Initiative category & Initiative type

Low-carbon energy generation
Other, please specify
Machine/equipment replacement

### Estimated annual CO2e savings (metric tonnes CO2e)

230



## Scope(s) or Scope 3 category(ies) where emissions savings occur

Scope 2 (location-based) Scope 2 (market-based)

## **Voluntary/Mandatory**

Voluntary

Annual monetary savings (unit currency – as specified in C0.4)

Investment required (unit currency – as specified in C0.4)

Payback period

Estimated lifetime of the initiative

#### Comment

Solar panel installation with power purchase agreement went live end of 2021 in our Requejada factory (Santander, Spain)

## C4.3c

## (C4.3c) What methods do you use to drive investment in emissions reduction activities?

Method	Comment
Compliance with regulatory	Compliance with regulatory requirements / standards: Graphic Packaging is in a heavily regulated industry and thus a
•	portion of capital investments are directed to meet regulatory compliance. We continually assess capital investments for opportunities to achieve higher reductions in greenhouse gas emissions.



Financial optimization calculations	Financial optimization calculations: As a public company, Graphic Packaging applies financial rigor to capital investments to understand the return on investment. These calculations include factors such as emission reduction savings, productivity implications, and overall strategic impacts.
Internal finance mechanisms	Internal finance mechanisms: In addition to return on investment calculations, potential savings and revenue opportunities are assessed as part of our overall financial analysis.
Partnering with governments on technology development	Partnering with governments on technology development: Graphic Packaging has partnered with the Department of Energy through the Better Plants program to develop projects.

## C4.5

(C4.5) Do you classify any of your existing goods and/or services as low-carbon products?

Yes

## C4.5a

(C4.5a) Provide details of your products and/or services that you classify as low-carbon products.

## Level of aggregation

Group of products or services

Taxonomy used to classify product(s) or service(s) as low-carbon

Climate Bonds Taxonomy

Type of product(s) or service(s)

Pulp and paper Other, please specify



#### Packaging products

#### **Description of product(s) or service(s)**

Graphic Packaging manufactures and sells paperboard packaging. This packaging is made from renewable materials and tree- fiber materials, and virtually all can be recycled. Approximately 64% of the energy used to make the paperboard packaging is renewable energy generated using biomass. When comparing the environmental profile of paperboard packaging with other packaging formats like plastic, glass, and metal, paperboard packaging can present a lower GHG emissions footprint as measured by ISO Life Cycle assessment methodologies. Graphic Packaging partners with a third party to better understand the emissions reductions resulting from its products through life-cycle analyses. For example, an update to our LCA for various multipack beverage packaging designs was conducted in fall of 2020.

Have you estimated the avoided emissions of this low-carbon product(s) or service(s) No

Methodology used to calculate avoided emissions

Life cycle stage(s) covered for the low-carbon product(s) or services(s)

Functional unit used

Reference product/service or baseline scenario used

Life cycle stage(s) covered for the reference product/service or baseline scenario

Estimated avoided emissions (metric tons CO2e per functional unit) compared to reference product/service or baseline scenario

Explain your calculation of avoided emissions, including any assumptions



Revenue generated from low-carbon product(s) or service(s) as % of total revenue in the reporting year

## **C5.** Emissions methodology

## C5.1

(C5.1) Is this your first year of reporting emissions data to CDP?

## C5.1a

(C5.1a) Has your organization undergone any structural changes in the reporting year, or are any previous structural changes being accounted for in this disclosure of emissions data?

#### Row 1

Has there been a structural change?

No

## C5.1b

(C5.1b) Has your emissions accounting methodology, boundary, and/or reporting year definition changed in the reporting year?

Change(s) in methodology, boundary, and/or reporting year definition change(s) and/or reporting year definition?



Row	Yes, a change in methodology	Distance and weight data became available for some T&D covered in Category 4 in FY22. This allowed for
1		more precise distance-based calculations compared to 2021, where only a spend-based calculation was
		able to be performed.

## C5.1c

# (C5.1c) Have your organization's base year emissions and past years' emissions been recalculated as a result of any changes or errors reported in C5.1a and/or C5.1b?

	Base year recalculation	Base year emissions recalculation policy, including significance threshold	Past years' recalculation
Row 1		GPI did not complete a Scope 3 calculation or set a Scope 3 target in its original 2016 base year, therefore recalculating Scope 3 emissions is not relevant nor possible. GPI committed to submitting Science Based Targets in 2023, meaning the historic 2016 base year will no longer be relevant once our SBTs are approved.	No

## C5.2

(C5.2) Provide your base year and base year emissions.

## Scope 1

Base year start

January 1, 2016

Base year end

December 31, 2016

Base year emissions (metric tons CO2e)

1,257,469



#### Comment

GPI committed to submitting Science Based Targets in 2023. GPI's base year will be changed with these updated targets.

### Scope 2 (location-based)

#### Base year start

January 1, 2016

#### Base year end

December 31, 2016

#### Base year emissions (metric tons CO2e)

789,906

#### Comment

GPI committed to submitting Science Based Targets in 2023. GPI's base year will be changed with these updated targets.

#### Scope 2 (market-based)

## Base year start

January 1, 2016

## Base year end

December 31, 2016

### Base year emissions (metric tons CO2e)

793,037

#### Comment

GPI committed to submitting Science Based Targets in 2023. GPI's base year will be changed with these updated targets.

#### Scope 3 category 1: Purchased goods and services



Base year start
Base year end
Base year emissions (metric tons CO2e)
Comment  GPI committed to submitting Science Based Targets in 2023. GPI's base year will be changed with these updated targets.
Scope 3 category 2: Capital goods
Base year start
Base year end
Base year emissions (metric tons CO2e)
Comment  GPI committed to submitting Science Based Targets in 2023. GPI's base year will be changed with these updated targets.
Scope 3 category 3: Fuel-and-energy-related activities (not included in Scope 1 or 2)
Base year start
Base year end



## **Base year emissions (metric tons CO2e)**

#### Comment

GPI committed to submitting Science Based Targets in 2023. GPI's base year will be changed with these updated targets.

#### Scope 3 category 4: Upstream transportation and distribution

Base year start

Base year end

Base year emissions (metric tons CO2e)

#### Comment

GPI committed to submitting Science Based Targets in 2023. GPI's base year will be changed with these updated targets.

## Scope 3 category 5: Waste generated in operations

Base year start

Base year end

Base year emissions (metric tons CO2e)

#### Comment

GPI committed to submitting Science Based Targets in 2023. GPI's base year will be changed with these updated targets.



Scope 3 category 6: Business travel
Base year start
Base year end
Base year emissions (metric tons CO2e)
Comment  GPI committed to submitting Science Based Targets in 2023. GPI's base year will be changed with these updated targets.
Scope 3 category 7: Employee commuting
Base year start
Base year end
Base year emissions (metric tons CO2e)
Comment  GPI committed to submitting Science Based Targets in 2023. GPI's base year will be changed with these updated targets.
Scope 3 category 8: Upstream leased assets
Base year start



DISCLOSURE INSIGHT ACTIO
Base year end
Base year emissions (metric tons CO2e)
Comment
GPI committed to submitting Science Based Targets in 2023. GPI's base year will be changed with these updated targets.
Scope 3 category 9: Downstream transportation and distribution
Base year start
Base year end
Base year emissions (metric tons CO2e)
Comment  GPI committed to submitting Science Based Targets in 2023. GPI's base year will be changed with these updated targets.
Scope 3 category 10: Processing of sold products
Base year start
Base year end
Base year emissions (metric tons CO2e)



#### Comment

GPI committed to submitting Science Based Targets in 2023. GPI's base year will be changed with these updated targets.

## Scope 3 category 11: Use of sold products

Base year start

Base year end

**Base year emissions (metric tons CO2e)** 

#### Comment

GPI committed to submitting Science Based Targets in 2023. GPI's base year will be changed with these updated targets.

### Scope 3 category 12: End of life treatment of sold products

Base year start

Base year end

Base year emissions (metric tons CO2e)

#### Comment

GPI committed to submitting Science Based Targets in 2023. GPI's base year will be changed with these updated targets.

#### Scope 3 category 13: Downstream leased assets



Base year start
Base year end
Base year emissions (metric tons CO2e)
Comment
GPI committed to submitting Science Based Targets in 2023. GPI's base year will be changed with these updated targets.
Scope 3 category 14: Franchises
Base year start
Base year end
Base year emissions (metric tons CO2e)
Comment
GPI committed to submitting Science Based Targets in 2023. GPI's base year will be changed with these updated targets.
Scope 3 category 15: Investments
Base year start
Base year end



## **Base year emissions (metric tons CO2e)**

#### Comment

GPI committed to submitting Science Based Targets in 2023. GPI's base year will be changed with these updated targets.

#### Scope 3: Other (upstream)

Base year start

Base year end

Base year emissions (metric tons CO2e)

#### Comment

GPI committed to submitting Science Based Targets in 2023. GPI's base year will be changed with these updated targets.

## Scope 3: Other (downstream)

Base year start

Base year end

Base year emissions (metric tons CO2e)

#### Comment

GPI committed to submitting Science Based Targets in 2023. GPI's base year will be changed with these updated targets.



## C5.3

#### (C5.3) Select the name of the standard, protocol, or methodology you have used to collect activity data and calculate emissions.

Defra Environmental Reporting Guidelines: Including streamlined energy and carbon reporting guidance, 2019

IEA CO2 Emissions from Fuel Combustion

IPCC Guidelines for National Greenhouse Gas Inventories, 2006

The Greenhouse Gas Protocol: A Corporate Accounting and Reporting Standard (Revised Edition)

The Greenhouse Gas Protocol: Scope 2 Guidance

The Greenhouse Gas Protocol: Corporate Value Chain (Scope 3) Standard

US EPA Mandatory Greenhouse Gas Reporting Rule

US EPA Emissions & Generation Resource Integrated Database (eGRID)

## C6. Emissions data

## **C6.1**

## (C6.1) What were your organization's gross global Scope 1 emissions in metric tons CO2e?

#### Reporting year

#### **Gross global Scope 1 emissions (metric tons CO2e)**

1,626,876

#### Start date

January 1, 2022

#### End date

December 31, 2022

#### Comment



N/A

## Past year 1

## **Gross global Scope 1 emissions (metric tons CO2e)**

1,604,093

#### Start date

January 1, 2021

#### End date

December 31, 2021

#### Comment

This 2021 value is a restatement of emissions.

## C6.2

## (C6.2) Describe your organization's approach to reporting Scope 2 emissions.

#### Row 1

## Scope 2, location-based

We are reporting a Scope 2, location-based figure

### Scope 2, market-based

We are reporting a Scope 2, market-based figure

#### Comment



## C6.3

## (C6.3) What were your organization's gross global Scope 2 emissions in metric tons CO2e?

### Reporting year

## Scope 2, location-based

830,572

## Scope 2, market-based (if applicable)

828,431

#### Start date

January 1, 2022

#### **End date**

December 31, 2022

#### Comment

NA

### Past year 1

## Scope 2, location-based

680,066

### Scope 2, market-based (if applicable)

714,504

#### Start date

January 1, 2021

#### **End date**



December 31, 2021

#### Comment

These 2021 values are a restatement of emissions.

## **C6.4**

(C6.4) Are there any sources (e.g. facilities, specific GHGs, activities, geographies, etc.) of Scope 1, Scope 2 or Scope 3 emissions that are within your selected reporting boundary which are not included in your disclosure?

Yes

## C6.4a

(C6.4a) Provide details of the sources of Scope 1, Scope 2, or Scope 3 emissions that are within your selected reporting boundary which are not included in your disclosure.

#### Source of excluded emissions

Graphic Packaging is excluding its former facility in Norwalk from its disclosure.

## Scope(s) or Scope 3 category(ies)

Scope 1

Scope 2 (location-based)

Scope 2 (market-based)

## Relevance of Scope 1 emissions from this source

Emissions are not relevant

#### Relevance of location-based Scope 2 emissions from this source

Emissions are not relevant



#### Relevance of market-based Scope 2 emissions from this source

Emissions are not relevant

Relevance of Scope 3 emissions from this source

Date of completion of acquisition or merger

Estimated percentage of total Scope 1+2 emissions this excluded source represents

Estimated percentage of total Scope 3 emissions this excluded source represents

#### Explain why this source is excluded

Graphic Packaging is excluding its former facility in Norwalk from this disclosure because it was only recently acquired as of July 2021, then closed mid-2022, and represented an immaterial percentage of Graphic Packaging's emissions in 2021. The Norwalk site represented less than 0.1% of Graphic Packaging's total emissions.

### Explain how you estimated the percentage of emissions this excluded source represents

Our packaging facilities make up less than 18% of our total Scope 1 and 2 emissions, spread over 109 sites, with each individual site emissions of 0.01 - 1% of total emissions, and an average per site of 0.17% of total scope 1 and 2 emissions. Since Norwalk was in operation for less than 6 months and was a smaller site, we determined that it represented less than 0.1% of total emissions.

## **C6.5**

(C6.5) Account for your organization's gross global Scope 3 emissions, disclosing and explaining any exclusions.

Purchased goods and services

**Evaluation status** 



Relevant, calculated

#### **Emissions in reporting year (metric tons CO2e)**

3,493,274

#### **Emissions calculation methodology**

Average data method Spend-based method

#### Percentage of emissions calculated using data obtained from suppliers or value chain partners

n

#### Please explain

A combination of volume and spend data was used to estimate global Category 1 emissions for both direct and indirect procurement. Where volume data was available, corresponding emission factors from ecoinvent v3.9.1 and the IPCC 2021 database were used to estimate emissions. Where only spend data was available, corresponding emission factors from the CEDA 6 EEIO database were used to estimate emissions.

#### **Capital goods**

#### **Evaluation status**

Relevant, calculated

### **Emissions in reporting year (metric tons CO2e)**

132,975

#### **Emissions calculation methodology**

Spend-based method

## Percentage of emissions calculated using data obtained from suppliers or value chain partners

0

#### Please explain



Spend data was used to estimate global Category 2 emissions. Corresponding emission factors from the CEDA 6 EEIO database were matched to capital goods spend descriptions and multiplied by total spend amounts to estimate emissions.

#### Fuel-and-energy-related activities (not included in Scope 1 or 2)

#### **Evaluation status**

Relevant, calculated

### **Emissions in reporting year (metric tons CO2e)**

463,007

#### **Emissions calculation methodology**

Average data method

### Percentage of emissions calculated using data obtained from suppliers or value chain partners

0

#### Please explain

Scope 1 and Scope 2 consumption data was used to estimate Category 3 emissions. WTT emissions from the use of fuels in Scope 1 were calculated using energy usage (kWh) from each fuel source along with corresponding well-to-wheel (WTW) emission factors from the DEFRA/BEIS Conversion Factors 2022 database. In Scope 2, purchased electricity consumption was multiplied by corresponding WTT and T&D generation emissions factors from the IEA (2022). District heating and cooling consumption was multiplied by the WTT generation and distribution losses emissions factors for district heating from the DEFRA/BEIS Conversion Factors 2022 database.

#### **Upstream transportation and distribution**

#### **Evaluation status**

Relevant, calculated

#### **Emissions in reporting year (metric tons CO2e)**

991,582

### **Emissions calculation methodology**



Spend-based method
Distance-based method

#### Percentage of emissions calculated using data obtained from suppliers or value chain partners

0

#### Please explain

A combination of shipping (inclusive of distance & weight) and spend data was used to estimate global Category 4 emissions. For regions, products, and/or modes of transport for which distance and weight for each shipment was available, the distance-based method was used along with well-to-wheel (WTW) emission factors from the DEFRA/BEIS Conversion Factors 2022 database. All other relevant Category 4 emissions were estimated using spend data and corresponding emission factors from the CEDA 6 EEIO database.

#### Waste generated in operations

#### **Evaluation status**

Relevant, calculated

## **Emissions in reporting year (metric tons CO2e)**

187,137

### **Emissions calculation methodology**

Waste-type-specific method

#### Percentage of emissions calculated using data obtained from suppliers or value chain partners

0

## Please explain

Waste amount, type, and disposal methods were collected across GPI global sites. Waste data was mapped to waste types present in the 2022 EPA Emission Factor Hub, ecoinvent v3.9.1 emissions factor, and DEFRA/BEIS Conversion Factors 2022 databases. Corresponding emissions factors from such databases were used to calculate emissions from the quantity of material and treatment pathway.

#### **Business travel**



#### **Evaluation status**

Relevant, calculated

#### **Emissions in reporting year (metric tons CO2e)**

3,488

#### **Emissions calculation methodology**

Spend-based method Fuel-based method Distance-based method

#### Percentage of emissions calculated using data obtained from suppliers or value chain partners

18.25

#### Please explain

A combination of fuel, distance, and spend data was used to estimate global Category 6 emissions. Where distance data was available, corresponding well-to-wheel (WTW) emission factors from the DEFRA/BEIS Conversion Factors 2022 database were used to estimate emissions. Where only spend data was available, corresponding emission factors from the CEDA 6 EEIO database were used to estimate emissions. For regions that did not have any data available, emissions were estimated using headcount and an average Category 6 emissions per employee ratio calculated in other regions. Per request from the Science Based Targets Initiative on our emissions data, hotel data was excluded from this Scope 3 category for 2022 and 2021 restated values.

#### **Employee commuting**

#### **Evaluation status**

Relevant, calculated

#### **Emissions in reporting year (metric tons CO2e)**

39,639

## **Emissions calculation methodology**

Average data method



#### Percentage of emissions calculated using data obtained from suppliers or value chain partners

0

#### Please explain

Total global headcount (including remote work status and estimated annual days) was used to estimate commuting mode and distance data using country-specific travel benchmarks, Total distance for various transportation methods was multiplied by corresponding well-to-wheel (WTW) emission factors from the DEFRA/BEIS Conversion Factors 2022 database to estimate emissions.

#### **Upstream leased assets**

#### **Evaluation status**

Relevant, calculated

#### **Emissions in reporting year (metric tons CO2e)**

99,218

## **Emissions calculation methodology**

Average data method

#### Percentage of emissions calculated using data obtained from suppliers or value chain partners

0

#### Please explain

Spend data was used to estimate global Category 8 emissions. Corresponding emission factors from the CEDA 6 EEIO database were matched to upstream leased asset spend descriptions and multiplied by total spend amounts to estimate emissions.

#### Downstream transportation and distribution

#### **Evaluation status**

Not relevant, explanation provided

#### Please explain

Graphic Packaging pays for all downstream transportation of sold products, as such this Scope 3 category is not relevant.



### **Processing of sold products**

#### **Evaluation status**

Relevant, calculated

#### **Emissions in reporting year (metric tons CO2e)**

123,695

#### **Emissions calculation methodology**

Average data method

### Percentage of emissions calculated using data obtained from suppliers or value chain partners

0

#### Please explain

This category estimates the total emissions associated with processing of board that GPI sells to other companies to be converted into finished packaging products. The processing of sold board is assumed to have a very similar emissions footprint as GPI's own board processing operations. Thus, a proxy emissions factor was developed for estimating emissions by dividing GPI's total 2022 US & Canada converting (market-based) Scope 1 & 2 GHG emissions by GPI's total 2022 US & Canada converted board (tonnes). Total unprocessed board (tonnes) sold by GPI is multiplied by this GPI North America specific emissions factor to estimate total Category 10 emissions.

#### Use of sold products

#### **Evaluation status**

Relevant, calculated

## **Emissions in reporting year (metric tons CO2e)**

20,227

#### **Emissions calculation methodology**

Methodology for direct use phase emissions, please specify see comment



#### Percentage of emissions calculated using data obtained from suppliers or value chain partners

0

#### Please explain

This category estimates the total direct use phase emissions resulting from sold packaging machines that use electricity during their operating life. Average lifetime energy consumptions of each sold machine were estimated and collated by the country in which they operate. Total Category 11 emissions were then calculated by multiplying total energy consumptions by country by corresponding electricity emission factors from the IEA (2022).

#### End of life treatment of sold products

#### **Evaluation status**

Relevant, calculated

#### **Emissions in reporting year (metric tons CO2e)**

1,372,061

## **Emissions calculation methodology**

Waste-type-specific method

#### Percentage of emissions calculated using data obtained from suppliers or value chain partners

0

#### Please explain

A combination of mass and revenue data was used to estimate global Category 12 emissions. End-of-Life treatment pathways were assumed based on publicly available sources, (e.g., recycling rates from the American Forest & Paper Association). Emissions factors from the US EPA GHG Emission Factors Hub (2022) were used to calculate emissions from the quantity of material and treatment pathway.

#### **Downstream leased assets**

#### **Evaluation status**

Not relevant, explanation provided



### Please explain

Graphic Packaging does not operate as a lessor for any assets and as such this Scope 3 category is not relevant.

#### **Franchises**

#### **Evaluation status**

Not relevant, explanation provided

#### Please explain

Graphic Packaging does not operate any franchises and as such this Scope 3 category is not relevant.

#### Investments

#### **Evaluation status**

Relevant, calculated

## **Emissions in reporting year (metric tons CO2e)**

5,356

### **Emissions calculation methodology**

Average data method

## Percentage of emissions calculated using data obtained from suppliers or value chain partners

0

#### Please explain

This category estimates the total emissions associated with GPI's joint ventures using similar GPI facilities as proxies.

## Other (upstream)

#### **Evaluation status**

Not relevant, explanation provided



## Please explain

Graphic Packaging has no other upstream emissions to report.

#### Other (downstream)

#### **Evaluation status**

Not relevant, explanation provided

#### Please explain

Graphic Packaging has no other downstream emissions to report.

## C6.5a

(C6.5a) Disclose or restate your Scope 3 emissions data for previous years.

#### Past year 1

#### Start date

January 1, 2021

#### End date

December 31, 2021

### Scope 3: Purchased goods and services (metric tons CO2e)

3,347,793

#### Scope 3: Capital goods (metric tons CO2e)

208,992

## Scope 3: Fuel and energy-related activities (not included in Scopes 1 or 2) (metric tons CO2e)

506,292

#### Scope 3: Upstream transportation and distribution (metric tons CO2e)



552,442

Scope 3: Waste generated in operations (metric tons CO2e)

179,739

Scope 3: Business travel (metric tons CO2e)

4,035

Scope 3: Employee commuting (metric tons CO2e)

30,339

Scope 3: Upstream leased assets (metric tons CO2e)

83,634

Scope 3: Downstream transportation and distribution (metric tons CO2e)

**Scope 3: Processing of sold products (metric tons CO2e)** 

145,115

Scope 3: Use of sold products (metric tons CO2e)

31,568

Scope 3: End of life treatment of sold products (metric tons CO2e)

1,560,554

Scope 3: Downstream leased assets (metric tons CO2e)

**Scope 3: Franchises (metric tons CO2e)** 

Scope 3: Investments (metric tons CO2e)



6,764

Scope 3: Other (upstream) (metric tons CO2e)

Scope 3: Other (downstream) (metric tons CO2e)

#### Comment

This is restated 2021 GHG emissions data. The primary reasons for restatement are improved methodology/calculations followed in prior GHG inventory calculation as well as including full year emissions from Graphic Packaging's Americant and ARP acquisitions.

## C-AC6.8/C-FB6.8/C-PF6.8

(C-AC6.8/C-FB6.8/C-PF6.8) Is biogenic carbon pertaining to your direct operations relevant to your current CDP climate change disclosure?

Yes

## C-AC6.8a/C-FB6.8a/C-PF6.8a

(C-AC6.8a/C-FB6.8a/C-PF6.8a) Account for biogenic carbon data pertaining to your direct operations and identify any exclusions.

CO2 emissions from biofuel combustion (processing/manufacturing machinery)

**Emissions (metric tons CO2)** 

5,931,329

Methodology

Default emissions factors

Please explain



Biogenic carbon dioxide emissions were calculated for bark, black liquor, sludge, and railroad cross ties using the US EPA MRR Final Rule (40 CFR 98) - Industrial Sector 2013 emission factor set based on the energy generated from the combustion of these sources.

### CO2 emissions from biofuel combustion (other)

#### **Emissions (metric tons CO2)**

0

### Methodology

Default emissions factors

### Please explain

Graphic Packaging does not generate emissions from biofuel combustion other than from processing and manufacturing machinery, which is already disclosed.

## C-AC6.9/C-FB6.9/C-PF6.9

(C-AC6.9/C-FB6.9/C-PF6.9) Do you collect or calculate greenhouse gas emissions for each commodity reported as significant to your business in C-AC0.7/FB0.7/PF0.7?

## **Agricultural commodities**

Timber

Do you collect or calculate GHG emissions for this commodity?

Yes

Reporting emissions by

Total

**Emissions (metric tons CO2e)** 

1,313,265



**Denominator: unit of production** 

**Change from last reporting year** 

Higher

Please explain

Company-wide GHG emissions from timber (purchased pulpwood and paperboard) are calculated as part of our Scope 3: Purchased Goods and Services emissions.

Explain why you do not calculate GHG emission for this commodity and your plans to do so in the future

## C6.10

(C6.10) Describe your gross global combined Scope 1 and 2 emissions for the reporting year in metric tons CO2e per unit currency total revenue and provide any additional intensity metrics that are appropriate to your business operations.

## Intensity figure

0.000260096

Metric numerator (Gross global combined Scope 1 and 2 emissions, metric tons CO2e)

2,455,307

**Metric denominator** 

unit total revenue

Metric denominator: Unit total

9,440,000,000

Scope 2 figure used



Market-based

#### % change from previous year

6

#### **Direction of change**

Decreased

#### Reason(s) for change

Other emissions reduction activities

Change in revenue

Change in physical operating conditions

### Please explain

Intensity of emissions per unit of revenue have decreased by 20%. Reductions in GHG emissions intensity are largely due to revenue growth from expanding less energy-intensive packaging operations, continued product demand for plastic packaging alternatives, and from favorable product pricing. Emissions intensity was restated in 2022 ESG report from value previously disclosed in prior CDP submission to be ~0.00028.

## C7. Emissions breakdowns

### C7.1

(C7.1) Does your organization break down its Scope 1 emissions by greenhouse gas type?

Yes

## C7.1a

(C7.1a) Break down your total gross global Scope 1 emissions by greenhouse gas type and provide the source of each used greenhouse warming potential (GWP).

**Greenhouse gas** 

Scope 1 emissions (metric tons of CO2e)

**GWP** Reference



CO2	1,499,924	IPCC Fourth Assessment Report (AR4 - 100 year)
CH4	115,077	IPCC Fourth Assessment Report (AR4 - 100 year)
N2O	1,271	IPCC Fourth Assessment Report (AR4 - 100 year)
HFCs	10,605	IPCC Fourth Assessment Report (AR4 - 100 year)

## **C7.2**

## (C7.2) Break down your total gross global Scope 1 emissions by country/area/region.

Country/area/region	Scope 1 emissions (metric tons CO2e)
United States of America	1,566,258
Europe, the Middle East, Africa and Russia (EMEAR)	22,330
Latin America (LATAM)	1,975
Canada	35,780
Asia, Australasia	532

## **C7.3**

## (C7.3) Indicate which gross global Scope 1 emissions breakdowns you are able to provide.

By business division

## C7.3a

## (C7.3a) Break down your total gross global Scope 1 emissions by business division.

Business division	Scope 1 emissions (metric ton CO2e)
Mills Division	1,549,399
Converting and Machinery	77,477



# C-AC7.4/C-FB7.4/C-PF7.4

(C-AC7.4/C-FB7.4/C-PF7.4) Do you include emissions pertaining to your business activity(ies) in your direct operations as part of your global gross Scope 1 figure?

Yes

# C-AC7.4b/C-FB7.4b/C-PF7.4b

(C-AC7.4b/C-FB7.4b) Report the Scope 1 emissions pertaining to your business activity(ies) and explain any exclusions. If applicable, disaggregate your agricultural/forestry by GHG emissions category.

#### **Activity**

Processing/Manufacturing

# **Emissions (metric tons CO2e)**

1,549,399

#### Methodology

Default emissions factor

#### Please explain

Over half of Graphic Packaging's Scope 1 emissions result from activities from mill operations, which are the core of our processing and manufacturing activities. To calculate the respective emissions, the energy activity is multiplied by standard (default) emission factors.

# **C7.5**

(C7.5) Break down your total gross global Scope 2 emissions by country/area/region.

Country/area/region

Scope 2, location-based (metric tons CO2e)

Scope 2, market-based (metric tons CO2e)



United States of America	766,877	743,259
Europe, the Middle East, Africa and Russia (EMEAR)	44,481	65,957
Latin America (LATAM)	6,213	6,213
Canada	378	378
Asia, Australasia	12,623	12,623

# **C7.6**

(C7.6) Indicate which gross global Scope 2 emissions breakdowns you are able to provide.

By business division

# C7.6a

(C7.6a) Break down your total gross global Scope 2 emissions by business division.

Business division	Scope 2, location-based (metric tons CO2e)	Scope 2, market-based (metric tons CO2e)
Mills Division	482,569	469,768
Converting and Machinery	348,003	358,663

# **C7.7**

(C7.7) Is your organization able to break down your emissions data for any of the subsidiaries included in your CDP response?

# C7.9

(C7.9) How do your gross global emissions (Scope 1 and 2 combined) for the reporting year compare to those of the previous reporting year?

Increased



# C7.9a

(C7.9a) Identify the reasons for any change in your gross global emissions (Scope 1 and 2 combined), and for each of them specify how your emissions compare to the previous year.

	Change in emissions (metric tons CO2e)	Direction of change in emissions	Emissions value (percentage)	Please explain calculation
Change in renewable energy consumption				
Other emissions reduction activities	75,129	Decreased	3.3	The decrease in Scope 1 & 2 emissions from 2021 to 2022 due to GPI's emission reduction projects (detailed in C4.3b) was 75,129 tCO2e, equivalent to 3.3% (75,129 / 2,270491 = 3.3%)
Divestment				
Acquisitions				
Mergers				
Change in output				
Change in methodology				
Change in boundary				
Change in physical operating conditions				



Ur	nidentified	211,839	Increased	There were a variety of business changes in 2022, including increased production, the opening of a new mill facility, and increased renewable energy consumption. These all lead to varying changes in overall Scope 1 & 2 emissions that are challenging to isolate. Overall, Scope 1 & 2 emissions increased by 136,710 tCO2e from 2021 to 2022. However, accounting for the emissions reduction initiatives listed above, the net increase is 211,839 tCO2e, equivalent to 9.1% (211,839 / 2,270,491 = 9.1%).
Of	ther			

# C7.9b

(C7.9b) Are your emissions performance calculations in C7.9 and C7.9a based on a location-based Scope 2 emissions figure or a market-based Scope 2 emissions figure?

Market-based

# C8. Energy

# C8.1

(C8.1) What percentage of your total operational spend in the reporting year was on energy?

More than 5% but less than or equal to 10%

# C8.2

(C8.2) Select which energy-related activities your organization has undertaken.

	Indicate whether your organization undertook this energy-related activity in the reporting year
Consumption of fuel (excluding feedstocks)	Yes



Consumption of purchased or acquired electricity	Yes
Consumption of purchased or acquired heat	Yes
Consumption of purchased or acquired steam	No
Consumption of purchased or acquired cooling	Yes
Generation of electricity, heat, steam, or cooling	Yes

# C8.2a

# (C8.2a) Report your organization's energy consumption totals (excluding feedstocks) in MWh.

	Heating value	MWh from renewable sources	MWh from non-renewable sources	Total (renewable and non-renewable) MWh
Consumption of fuel (excluding feedstock)	HHV (higher heating value)	18,229,200	8,143,300	26,372,500
Consumption of purchased or acquired electricity		41,200	1,909,800	1,951,000
Consumption of purchased or acquired heat		0	4,200	4,200
Consumption of purchased or acquired cooling			7,700	7,700
Consumption of self-generated non-fuel renewable energy		0		0
Total energy consumption		18,276,200	10,059,200	28,335,400

# C8.2b

(C8.2b) Select the applications of your organization's consumption of fuel.



	Indicate whether your organization undertakes this fuel application
Consumption of fuel for the generation of electricity	No
Consumption of fuel for the generation of heat	No
Consumption of fuel for the generation of steam	No
Consumption of fuel for the generation of cooling	No
Consumption of fuel for co-generation or tri-generation	Yes

# C8.2c

(C8.2c) State how much fuel in MWh your organization has consumed (excluding feedstocks) by fuel type.

#### Sustainable biomass

**Heating value** 

HHV

Total fuel MWh consumed by the organization

18,218,900

MWh fuel consumed for self-generation of heat

MWh fuel consumed for self- cogeneration or self-trigeneration

18,218,900

Comment

### Other biomass

Coal



# **Heating value** HHVTotal fuel MWh consumed by the organization MWh fuel consumed for self-generation of heat 0 MWh fuel consumed for self- cogeneration or self-trigeneration Comment Other renewable fuels (e.g. renewable hydrogen) **Heating value** HHV Total fuel MWh consumed by the organization 10,300 MWh fuel consumed for self-generation of heat MWh fuel consumed for self- cogeneration or self-trigeneration 10,300 Comment Biogas



# **Heating value**

HHV

Total fuel MWh consumed by the organization

0

MWh fuel consumed for self-generation of heat

0

MWh fuel consumed for self- cogeneration or self-trigeneration

0

Comment

#### Oil

# **Heating value**

HHV

Total fuel MWh consumed by the organization

273,900

MWh fuel consumed for self-generation of heat

0

MWh fuel consumed for self- cogeneration or self-trigeneration

273,900

Comment

#### Gas



### **Heating value**

HHV

Total fuel MWh consumed by the organization

7,869,400

MWh fuel consumed for self-generation of heat

0

MWh fuel consumed for self- cogeneration or self-trigeneration

7,869,400

Comment

### Other non-renewable fuels (e.g. non-renewable hydrogen)

### **Heating value**

HHV

Total fuel MWh consumed by the organization

0

MWh fuel consumed for self-generation of heat

0

MWh fuel consumed for self- cogeneration or self-trigeneration

0

Comment

#### **Total fuel**



# **Heating value**

HHV

Total fuel MWh consumed by the organization

26,372,500

MWh fuel consumed for self-generation of heat

0

MWh fuel consumed for self- cogeneration or self-trigeneration

26,372,500

Comment

# C8.2d

# (C8.2d) Provide details on the electricity, heat, steam, and cooling your organization has generated and consumed in the reporting year.

	Total Gross generation (MWh)	Generation that is consumed by the organization (MWh)	Gross generation from renewable sources (MWh)	Generation from renewable sources that is consumed by the organization (MWh)
Electricity	1,858,100	1,843,700	1,273,600	1,273,600
Heat	0	0	0	0
Steam	17,216,600	17,216,600	12,189,400	12,189,400
Cooling	0	0	0	0



# C8.2e

(C8.2e) Provide details on the electricity, heat, steam, and/or cooling amounts that were accounted for at a zero or near-zero emission factor in the market-based Scope 2 figure reported in C6.3.

#### Country/area of low-carbon energy consumption

Austria

#### Sourcing method

Project-specific contract with an electricity supplier

#### **Energy carrier**

Electricity

#### Low-carbon technology type

Renewable energy mix, please specify see comments

# Low-carbon energy consumed via selected sourcing method in the reporting year (MWh)

11,700

# **Tracking instrument used**

Contract

#### Country/area of origin (generation) of the low-carbon energy or energy attribute

Austria

Are you able to report the commissioning or re-powering year of the energy generation facility?

No

Commissioning year of the energy generation facility (e.g. date of first commercial operation or repowering)



#### Comment

Graphic Packaging's location received 100% of its power from renewable energy in 2021. Only renewable energy is used in generation, but the specific energy mix is not specified.

## Country/area of low-carbon energy consumption

Sweden

#### Sourcing method

Project-specific contract with an electricity supplier

#### **Energy carrier**

Electricity

## Low-carbon technology type

Renewable energy mix, please specify see comments

#### Low-carbon energy consumed via selected sourcing method in the reporting year (MWh)

28,700

## **Tracking instrument used**

Contract

#### Country/area of origin (generation) of the low-carbon energy or energy attribute

Sweden

# Are you able to report the commissioning or re-powering year of the energy generation facility?

No



#### Commissioning year of the energy generation facility (e.g. date of first commercial operation or repowering)

#### Comment

3 sites in Sweden have purchased GOs to power 100% of their electricity. Sources include water, wind, solar, geothermal and biomass are all potential sources.

### Country/area of low-carbon energy consumption

Spain

# Sourcing method

Purchase from an on-site installation owned by a third party (on-site PPA)

#### **Energy carrier**

Electricity

### Low-carbon technology type

Solar

### Low-carbon energy consumed via selected sourcing method in the reporting year (MWh)

830

### Tracking instrument used

Contract

### Country/area of origin (generation) of the low-carbon energy or energy attribute

Spain

#### Are you able to report the commissioning or re-powering year of the energy generation facility?

No



# Commissioning year of the energy generation facility (e.g. date of first commercial operation or repowering)

#### Comment

Solar panel installation with power purchase agreement went live end of 2021 in our Requejada factory (Santander, Spain).

# C8.2g

(C8.2g) Provide a breakdown by country/area of your non-fuel energy consumption in the reporting year.

#### Country/area

United States of America

Consumption of purchased electricity (MWh)

1,652,805

Consumption of self-generated electricity (MWh)

1,844,100

Consumption of purchased heat, steam, and cooling (MWh)

0

Consumption of self-generated heat, steam, and cooling (MWh)

17,220,300

Total non-fuel energy consumption (MWh) [Auto-calculated]

20,717,205



# Country/area

Other, please specify
Europe, the Middle East, Africa, and Russian Federation

## Consumption of purchased electricity (MWh)

183,338

## Consumption of self-generated electricity (MWh)

14,000

# Consumption of purchased heat, steam, and cooling (MWh)

12,000

# Consumption of self-generated heat, steam, and cooling (MWh)

3,200

# Total non-fuel energy consumption (MWh) [Auto-calculated]

212,538

# Country/area

Other, please specify
Latin America (LATAM)

# Consumption of purchased electricity (MWh)

17,883

# Consumption of self-generated electricity (MWh)

0

# Consumption of purchased heat, steam, and cooling (MWh)



0

Consumption of self-generated heat, steam, and cooling (MWh)

3,500

Total non-fuel energy consumption (MWh) [Auto-calculated]

21,383

### Country/area

Canada

**Consumption of purchased electricity (MWh)** 

74,390

**Consumption of self-generated electricity (MWh)** 

0

Consumption of purchased heat, steam, and cooling (MWh)

0

Consumption of self-generated heat, steam, and cooling (MWh)

Λ

Total non-fuel energy consumption (MWh) [Auto-calculated]

74,390

Country/area



Other, please specify Asia, Australasia

Consumption of purchased electricity (MWh)

22,601

Consumption of self-generated electricity (MWh)

0

Consumption of purchased heat, steam, and cooling (MWh)

0

Consumption of self-generated heat, steam, and cooling (MWh)

0

Total non-fuel energy consumption (MWh) [Auto-calculated]

22,601

# **C9.** Additional metrics

# C9.1

(C9.1) Provide any additional climate-related metrics relevant to your business.



# C10. Verification

# C10.1

(C10.1) Indicate the verification/assurance status that applies to your reported emissions.

	Verification/assurance status	
Scope 1	Third-party verification or assurance process in place	
Scope 2 (location-based or market-based)	Third-party verification or assurance process in place	
Scope 3	Third-party verification or assurance process in place	

# C10.1a

(C10.1a) Provide further details of the verification/assurance undertaken for your Scope 1 emissions, and attach the relevant statements.

Verification or assurance cycle in place

Annual process

Status in the current reporting year

Complete

Type of verification or assurance

Limited assurance

Attach the statement



### Page/ section reference

1-2

#### Relevant standard

ISO14064-3

### Proportion of reported emissions verified (%)

100

# C10.1b

(C10.1b) Provide further details of the verification/assurance undertaken for your Scope 2 emissions and attach the relevant statements.

# Scope 2 approach

Scope 2 location-based

# Verification or assurance cycle in place

Annual process

# Status in the current reporting year

Complete

### Type of verification or assurance

Limited assurance

#### Attach the statement



# Page/ section reference

1-2

#### Relevant standard

ISO14064-3

### Proportion of reported emissions verified (%)

100

# Scope 2 approach

Scope 2 market-based

### Verification or assurance cycle in place

Annual process

### Status in the current reporting year

Complete

# Type of verification or assurance

Limited assurance

#### Attach the statement

 $\ensuremath{\mathbb{Q}}$  GPI CY2022 Assurance Statement Final.pdf

# Page/ section reference

1-2

#### Relevant standard

ISO14064-3



# Proportion of reported emissions verified (%)

100

# C10.1c

(C10.1c) Provide further details of the verification/assurance undertaken for your Scope 3 emissions and attach the relevant statements.

#### Scope 3 category

Scope 3: Purchased goods and services

Scope 3: Capital goods

Scope 3: Fuel and energy-related activities (not included in Scopes 1 or 2)

Scope 3: Upstream transportation and distribution

Scope 3: Waste generated in operations

Scope 3: Business travel

Scope 3: Employee commuting

Scope 3: Upstream leased assets

Scope 3: Investments

Scope 3: Processing of sold products

Scope 3: Use of sold products

Scope 3: End-of-life treatment of sold products

## Verification or assurance cycle in place

Annual process

### Status in the current reporting year

Complete

#### Type of verification or assurance



Limited assurance

#### Attach the statement

### Page/section reference

1-2

#### Relevant standard

ISO14064-3

#### Proportion of reported emissions verified (%)

100

# C10.2

(C10.2) Do you verify any climate-related information reported in your CDP disclosure other than the emissions figures reported in C6.1, C6.3, and C6.5?

Yes

# C10.2a

# (C10.2a) Which data points within your CDP disclosure have been verified, and which verification standards were used?

Disclosure module verification relates to	Data verified	Verification standard	Please explain
C8. Energy	Energy consumption	ISO14064-3	This is a new verification category for reporting year 2022

<sup>&</sup>lt;sup>1</sup>GPI CY2022 Assurance Statement Final.pdf



# C11. Carbon pricing

# C11.1

(C11.1) Are any of your operations or activities regulated by a carbon pricing system (i.e. ETS, Cap & Trade or Carbon Tax)?

Yes

# C11.1a

(C11.1a) Select the carbon pricing regulation(s) which impacts your operations.

Québec CaT - ETS

# C11.1b

(C11.1b) Complete the following table for each of the emissions trading schemes you are regulated by.

#### **Québec CaT - ETS**

% of Scope 1 emissions covered by the ETS

2.03

% of Scope 2 emissions covered by the ETS

0.01

Period start date

January 1, 2022

Period end date

December 31, 2022

Allowances allocated



31,805

#### **Allowances purchased**

O

Verified Scope 1 emissions in metric tons CO2e

33,703

Verified Scope 2 emissions in metric tons CO2e

74

#### **Details of ownership**

Facilities we own and operate

#### Comment

Allocated allowances are estimated based on awarded allowances (23,854) in January 2022 that represent ~75% of projected 2022 allowances. Final total awarded allowances will be assigned in September 2023 following submission of the final 2022 emissions report.

# C11.1d

#### (C11.1d) What is your strategy for complying with the systems you are regulated by or anticipate being regulated by?

Our process for complying with the Québec ETS is as follows: We monitor energy use and measure emitted greenhouse gases to determine the number of allowances needed to offset Graphic Packaging emissions. In the case that actual emissions exceed awarded allowances, then Graphic Packaging would need to either use banked allowances or purchase additional allowances. To avoid the need to purchase allowances above the cap, we work to implement energy efficiency measures at the Québec mill. For example, the mill implemented minor changes in 2022 to replace the air knife coater to reduce coating material use and off-spec board production and to improve mill runnability. As a result, we have maintained energy use and GHG emissions below the Quebec ETS limit and have not had to purchase any allowances.

### C11.2

(C11.2) Has your organization canceled any project-based carbon credits within the reporting year?



No

# C11.3

#### (C11.3) Does your organization use an internal price on carbon?

No, but we anticipate doing so in the next two years

# C12. Engagement

# C12.1

#### (C12.1) Do you engage with your value chain on climate-related issues?

Yes, our suppliers

Yes, our customers/clients

# C12.1a

### (C12.1a) Provide details of your climate-related supplier engagement strategy.

#### Type of engagement

Innovation & collaboration (changing markets)

# **Details of engagement**

Run a campaign to encourage innovation to reduce climate impacts on products and services

# % of suppliers by number

1

% total procurement spend (direct and indirect)



10

#### % of supplier-related Scope 3 emissions as reported in C6.5

#### Rationale for the coverage of your engagement

We engage a few technology-specific innovators. Programs include upgrading performance of materials and reducing the amount of material required for producing our products. Engagements in innovation include designing coatings and tapes that are made from renewable materials and recyclable materials. We are addressing End-of-Life challenges that petroleum-based resins present. Coatings innovation work focuses on replacing LDPE on Foodservice packaging. The coatings will help meet recycling needs and thus help improve the recovery of foodservice packaging, reducing the amount that would otherwise be sent to landfill for disposal. Innovation efforts to replace resin-based tapes will allow 100% recovery of the package as the tape will be fiber based and can be processed in a recycled paperboard mill.

#### Impact of engagement, including measures of success

The impact of the engagement will help allow Graphic Packaging to provide sustainable, recyclable packaging solutions that are primarily made from renewable materials and are recyclable and / or compostable. Graphic Packaging measures the success of our engagement with our suppliers through our ability to develop and commercialize new products with improved recyclability attributes that are enabled by new materials or supplier enabled new designs. Success is measured against our Vision 2025 goals. As part of our 2025 Vision, Graphic Packaging has committed to reducing the use of low-density polyethylene (LDPE) by 40% and to delivering targeted revenue of \$400 - \$700 million from new product innovation efforts over the period of 2020 – 2025. Graphic Packaging's threshold for success is based on how it is tracking towards and if it ultimately achieves these goals. As an example of a positive outcome, Graphic Packaging has realized ~\$460 million in net new product sales during 2020-2022 attributed to customer conversion to our new, innovative packaging designs. Impact of climate-related supplier engagement strategy: By providing more sustainable food service packaging options that are more easily recycled than current offerings, Graphic Packaging can position itself as a leader in its sector, particularly in quick service restaurant markets where we are seeing increased demand for sustainable packaging solutions.

#### Comment

A significant challenge with products like Paper Cups & Food Service Packaging is the resin material that is added to the package for barrier protection. Traditional solutions include petroleum-based resins that may contaminate the paper recycling stream. These solutions generally are not compostable. Graphic Packaging has developed advanced biobased resins that provide barriers and generally are recyclable and / or compostable.



# C12.1b

#### (C12.1b) Give details of your climate-related engagement strategy with your customers.

#### Type of engagement & Details of engagement

Education/information sharing
Share information about your products and relevant certification schemes (i.e. Energy STAR)

% of customers by number

% of customer - related Scope 3 emissions as reported in C6.5

#### Please explain the rationale for selecting this group of customers and scope of engagement

Innovative partnerships and projects with customers are a key tenant of Graphic Packaging's Vision 2025 business strategy. We target engaging customers in the consumer-packaged goods market, focusing on the beverage, food, and household products segments where there is a desire to find recyclable packaging solutions and/or to eliminate tertiary packaging to reduce material use. We have access to and target engaging customers whose operations are high-speed and high-volume manufacturing processes, which gives us the largest opportunity to deliver impact.

Graphic Packaging offers a portfolio of fiber-based beverage multipack solutions, including our newest innovations KeelClip™, Cap-It™, GripClip™, and EnviroClip™. In addition, our established solutions such as our Marksman™ carton wraps, ship flat for efficient distribution efficiency and do not require glue due to their unique locking system design. Our strength packaging solutions, such as ZFlute™ and IntegraFlute™, maintain packaging performance through the supply chain while reducing overall material usage, including eliminating tertiary packaging materials.

The PaperSeal™ and ProducePack™ food packaging solutions offer paperboard solutions to reduce total fossil-based material use in food packaging by as much as 90% while protecting food from damage and preserving freshness. The scope of our engagement involves providing



customers with product literature, customized product education, innovation sessions with customers to explore packaging options, package footprint and circularity analyses, and trialing packaging solutions to enable successful packaging conversion. Our teams are engaging with all our global customers where there is a need to find climate friendly, recyclable packaging solutions and/or to eliminate tertiary packaging to reduce material use.

#### Impact of engagement, including measures of success

GPI's strategy is to grow together with both existing and new global customers by offering sustainable, recyclable, high-performance fiber-based packaging solutions. Our growth relies on skilled, talented people ideating new, innovative, and industry leading packaging solutions that meet customer and consumer needs.

This customer engagement is important because it 1) supports our strategy to grow by innovating new, sustainable, high-performing, recyclable packaging solutions, and 2) responds to our customer needs as many of our customers have set sustainability targets related to reducing packaging waste by either increasing the recyclability of their product packaging by replacing fossil-based packaging with paper-based solutions or by reducing the total amount of packaging they use by eliminating tertiary packaging. Both cases help our customers to reduce their value chain greenhouse gas emissions. GPI's customer engagement is driving innovation and emissions reduction in the consumer-packaged goods sector. Ultimately, success is measured through sales of our new product offerings. We measure success through our Vision 2025 ESG goal to deliver \$400-\$700 million in net new product revenue by 2025. GPI's threshold for success is if it is tracking towards and ultimately achieves these goals. As an example of a positive outcome, GPI has realized ~\$460 million in net new product sales during 2020-2022 attributed to customer conversion to our new, innovative packaging designs.

We also measure the number of actions completed: in 2022, a total of 129 sustainability related innovation sessions and trainings were implemented for GPI's customers globally with the aim to encourage customers to make more sustainable packaging choices. We expect the number of customer innovation sessions to grow as the impacts of Covid lessen and as we launch new innovative packaging solutions, including new multipacks for food and beverage categories, new applications for PaperSeal® and our wider food tray range, and produce category introductions including our ProducePack™ Punnet, and Boardio™, which is the newly added product for replacement of plastic tubs and cannisters for food, beverage and healthcare applications.

# C12.2

(C12.2) Do your suppliers have to meet climate-related requirements as part of your organization's purchasing process?



No, but we plan to introduce climate-related requirements within the next two years

# C-AC12.2/C-FB12.2/C-PF12.2

(C-AC12.2/C-FB12.2/C-PF12.2) Do you encourage your suppliers to undertake any agricultural or forest management practices with climate change mitigation and/or adaptation benefits?

Yes

# C-AC12.2a/C-FB12.2a/C-PF12.2a

(C-AC12.2a/C-FB12.2a/C-PF12.2a) Specify which agricultural or forest management practices with climate change mitigation and/or adaptation benefits you encourage your suppliers to undertake and describe your role in the implementation of each practice.

#### Management practice reference number

MP1

#### **Management practice**

Knowledge sharing

#### **Description of management practice**

Graphic Packaging engages with landowners, loggers, and land managers on an annual basis at training events hosted by Graphic Packaging at the West Monroe and Macon mills. These training events are facilitated by professors and wood procurement managers, who instruct continuing professional educational classes on sustainable forestry management practices. In 2022 we facilitated in-person training sessions in Macon, GA and Minden, LA (75 loggers were trained during the two sessions) and also sponsored logger training through the SFI State Implementation Committees. Additionally, Graphic Packaging engages regional members of forestry certification bodies. Graphic Packaging has chosen knowledge sharing as the management practice as it directly empowers our suppliers to make informed and educated decisions with the resources shared by our industry. We expect the sharing of knowledge to create more sustainable wood baskets that increase the resiliency of our supply chain.



#### Your role in the implementation

Knowledge sharing

#### Explanation of how you encourage implementation

Suppliers are encouraged to implement these new practices through personal instruction at Graphic Packaging-hosted informational training sessions at our West Monroe and Macon mills.

#### Climate change related benefit

Increasing resilience to climate change (adaptation) Increase carbon sink (mitigation)

#### Comment

# C-AC12.2b/C-FB12.2b/C-PF12.2b

(C-AC12.2b/C-FB12.2b/C-PF12.2b) Do you collect information from your suppliers about the outcomes of any implemented agricultural/forest management practices you have encouraged?

No

# C12.3

(C12.3) Does your organization engage in activities that could either directly or indirectly influence policy, law, or regulation that may impact the climate?

#### Row 1

External engagement activities that could directly or indirectly influence policy, law, or regulation that may impact the climate

Yes, we engage directly with policy makers

Yes, our membership of/engagement with trade associations could influence policy, law, or regulation that may impact the climate

Yes, we fund organizations or individuals whose activities could influence policy, law, or regulation that may impact the climate



# Does your organization have a public commitment or position statement to conduct your engagement activities in line with the goals of the Paris Agreement?

No, but we plan to have one in the next two years

# Describe the process(es) your organization has in place to ensure that your external engagement activities are consistent with your climate commitments and/or climate transition plan

Graphic Packaging's VP of Government Affairs provides strategic direction and ensures that the direct and indirect activities regarding climate change policies are consistent with the Company's strategy. The strategy is reviewed formally each year and on an ad hoc basis. Graphic Packaging's President and CEO and other members of the Executive Team participate in policy discussions at Federal and State levels. Environmental and climate change risks and opportunities, along with macroeconomic trends, are incorporated in our long-range plan, as appropriate. The long-range plan is presented to the Board of Directors for its consideration and approval.

# C12.3a

(C12.3a) On what policy, law, or regulation that may impact the climate has your organization been engaging directly with policy makers in the reporting year?

#### Specify the policy, law, or regulation on which your organization is engaging with policy makers

EPR is a policy / regulatory framework that assigns end of life responsibility to manufacturers or producers for packaging and products that are placed in the market

#### Category of policy, law, or regulation that may impact the climate

Low-carbon products and services

#### Focus area of policy, law, or regulation that may impact the climate

Extended Producer Responsibility (EPR)

#### Policy, law, or regulation geographic coverage

National



#### Country/area/region the policy, law, or regulation applies to

Europe North America

#### Your organization's position on the policy, law, or regulation

Oppose

#### **Description of engagement with policy makers**

Graphic Packaging appreciates that EPR policy is different in each region that the company operates. Generally Graphic Packaging opposes EPR for paper and paperboard packaging that does not factor in the recovery rates of the materials. The company views producer responsibility as the preferred policy. Producer responsibility places accountability on supply chain partners to continually recover the products and packaging that are placed on the market at end of life. Based on the most recent survey by AF&PA (2021), the recovery rates for paper and paperboard are approaching 70% and demonstrate that the forest products industry is addressing end of life of their materials by purchasing recycled paper as a raw material used in the making of recycled paper products and packaging. The high recovery rates demonstrate that there is a well-functioning market that is encouraging investment for capacity increases. According to the AF&PA, the US forest products industry has announced \$5.0 billion in capital investment by 2024 that will increase capacity and / or improve operational capability to recover more fiber.

In Europe, Graphic Packaging has been engaging mainly via its associations regarding different policy files related with the European Green Deal and the Circular Economy Action Plan, especially the Packaging and Packaging Waste regulation which EC proposal was released end of 2022. The main aspects covered in the position papers and discussions with MEPs were the proportionate requirements to fibre-based packaging in terms of recyclability in view of their already very high recycling rate, as well as the questioning that reuse obligation would achieve the target environmental benefits, in particular in terms of climate change vs. single use paper solutions based on latest scientific evidence.

In UK, there have also been some engagement in view of the new Extended Producer Responsibility scheme which will be implementing in 2024. In general, for UK, as well as in the EC member states where EPRs are already in place, we support fee structures scaled based on actual material recovery (e.g. lower fees for highly recovered materials) which will encourage the use of materials that are highly recovered.

We also advocate for harmonization in terms of collection, sorting and recycling of packaging across Europe. Derived progress in circularity are expected to reduce the climate impact of our industry.



Details of exceptions (if applicable) and your organization's proposed alternative approach to the policy, law or regulation No exceptions

Have you evaluated whether your organization's engagement on this policy, law, or regulation is aligned with the goals of the Paris Agreement?

Yes, we have evaluated, and it is aligned

# C12.3b

(C12.3b) Provide details of the trade associations your organization is a member of, or engages with, which are likely to take a position on any policy, law or regulation that may impact the climate.

#### Trade association

Other, please specify

American Forest and Paper Association

Is your organization's position on climate change policy consistent with theirs?

Consistent

Has your organization attempted to influence their position in the reporting year?

Yes, and they have changed their position

Describe how your organization's position is consistent with or differs from the trade association's position, and any actions taken to influence their position

AAF&PA members have long been stewards of our planet's resources. The industry produces recyclable products made from renewable resources, trees, and believes that

sustainable practices today will yield positive results for a better tomorrow. Better Practices, Better Planet 2030 (BPBP 2030) - the AF&PA's sustainability initiative – is a proactive commitment to the long-term success of our industry, our communities, our environment and the nearly 900,000 men and women who make the paper and wood products vital to the lives of people around the world. This initiative aligns the



objectives of one of the United Nations Sustainable Development Goals (UNSDGs). The six goals targeted within Better Practices Better Planet focus on increasing paper recovery for recycling, improving energy efficiency, reducing greenhouse gas emissions, promoting sustainable forestry practices, improving workplace safety, and reducing water use. PBP 2030 goals were established in 2021, and progress is reported at https://www.afandpa.org/priorities/sustainability. Graphic Packaging supports efforts by the organization to support industry research and develop industry tools to inform policy decisions that impact the forestry and forest products sectors.

Funding figure your organization provided to this trade association in the reporting year (currency as selected in C0.4)

Describe the aim of your organization's funding

Have you evaluated whether your organization's engagement with this trade association is aligned with the goals of the Paris Agreement?

Yes, we have evaluated, and it is aligned

# C12.3c

(C12.3c) Provide details of the funding you provided to other organizations or individuals in the reporting year whose activities could influence policy, law, or regulation that may impact the climate.

# Type of organization or individual

Political committee

# State the organization or individual to which you provided funding

The GPI-PAC is a voluntary, non-partisan political action committee (PAC) registered with the US Federal Election Commission

Funding figure your organization provided to this organization or individual in the reporting year (currency as selected in C0.4)



#### Describe the aim of this funding and how it could influence policy, law or regulation that may impact the climate

It provides employees and members of our Board of Directors with a legal and ethical way to pool personal financial donations to contribute to worthy candidates for federal and state offices in the US who support issues important to our business, our employees, and other stakeholders. The GPI-PAC is a separate segregated fund that complies with the Federal Election Campaign Act, as amended, and all state and federal election laws and regulations, including disclosure requirements. Every dollar contributed to GPI-PAC goes directly to supporting candidates either directly or through payments to industry trade associations' PACs. The GPI-PAC is independent of any political party, candidate, or organization, except that Graphic Packaging defrays all costs and expenses, as allowed by law, associated with operating GPI-PAC. A Board of Directors made up of Graphic Packaging executives provides oversight for GPI-PAC and reviews and approves all political contributions and other payments. More details can be found on our ESG reports at https://www.graphicpkg.com/sustainability. Public policy and legislation at all levels of government can have a significant impact on our Company, employees, industry, and stakeholders. Therefore, Graphic Packaging stays informed on significant domestic and foreign policies, regularly meets with public officials and policymakers, and engages trade and business associations, customers, suppliers, employees, communities, and non-governmental organizations on issues of mutual concern. Active engagement in the political and regulatory processes is an important means of protecting our commercial, employee, and stakeholder interests. Important legislative and regulatory engagement areas include Carbon Neutrality of Biomass, Recycling, and Regulatory Reform. Our engagement is centered around using facts, science and benefits of legislation and regulation to deliver a positive impact to the environment.

#### Have you evaluated whether this funding is aligned with the goals of the Paris Agreement?

No, we have not evaluated

## C12.4

(C12.4) Have you published information about your organization's response to climate change and GHG emissions performance for this reporting year in places other than in your CDP response? If so, please attach the publication(s).

#### **Publication**

In mainstream reports



#### **Status**

Complete

#### Attach the document

 $\emptyset \ {\it GraphicPackaging\_2022AR.pdf}$ 

# Page/Section reference

12, 14-15

#### **Content elements**

Strategy Risks & opportunities Other metrics

#### Comment

Graphic Packaging's Annual Report on Form 10-K includes disclosures related to climate strategy, climate risks & opportunities, and metrics related to sales from products that can be recycled.

#### **Publication**

In voluntary sustainability report

#### **Status**

Underway – previous year attached

#### Attach the document

0 2021-esg-report.pdf

# Page/Section reference



pages 85-148 and 156-167 provide the summary of Graphic Packaging's disclosure through SASB, GRI, TCFD as well as the UN SDGs. Additional context is provided throughout the report

#### **Content elements**

Governance

Strategy

Risks & opportunities

**Emissions figures** 

**Emission targets** 

Other metrics

#### Comment

Graphic Packaging's Annual Sustainability Report was written and organized to better reflect the scope of our disclosures and our commitment to a broad set of environmental, social, and governance initiatives. This report has been prepared in accordance with the GRI Standards: Core option, aligns with the Sustainability Accounting Standards Board (SASB) standards, and is informed by the Task Force on Climate-related Financial Disclosures (TCFD). For convenience we have provided alignment to the TCFD framework. Additionally, we have utilized the United Nations Sustainable Development Goals (SDGs) as a guiding framework in the development of our ESG initiatives and mapped disclosures in this report to the SDGs

# C12.5

# (C12.5) Indicate the collaborative frameworks, initiatives and/or commitments related to environmental issues for which you are a signatory/member.

	Environmental collaborative framework, initiative and/or commitment	Describe your organization's role within each framework, initiative and/or commitment
Row 1		On November 2, 2021, Graphic Packaging became a signatory to the United Nations Global Compact (UNGC), committing to act in accordance with the 10 principles of the compact, covering human rights, labor, the environment, and anti-corruption, and to take action in support of broader United Nations goals.



# C13. Other land management impacts

## C-AC13.2/C-FB13.2/C-PF13.2

(C-AC13.2/C-FB13.2/C-PF13.2) Do you know if any of the management practices mentioned in C-AC12.2a/C-FB12.2a/C-PF12.2a that were implemented by your suppliers have other impacts besides climate change mitigation/adaptation?

### C-AC13.2a/C-FB13.2a/C-PF13.2a

(C-AC13.2a/C-FB13.2a/C-PF13.2a) Provide details of those management practices implemented by your suppliers that have other impacts besides climate change mitigation/adaptation.

#### Management practice reference number

MP1

Yes

#### **Overall effect**

Positive

#### Which of the following has been impacted?

Biodiversity

Soil

Water

#### **Description of impacts**

We provide ongoing, multimode education to landowners, loggers, and land managers supplying our primary forest sourcing facilities. This includes targeted in-person events and the deployment of written materials aimed at supporting practices that drive climate mitigation/adaptation and biodiversity impacts. Events tailored to each audience are facilitated by experts who provide practical and targeted training. Such training is



required for all loggers supplying Graphic Packaging.

Our training focuses on the use of best management practices for water, soil and biodiversity protection, including:

- Use stream side management zones as a buffer to protect water quality and provide wildlife corridors.
- Construction of bridges to cross waterways to prevent stream disturbance.
- · Gaps and spacing in forest harvesting as wildlife corridors.
- Distribution of tree debris to protect against soil erosion, protect water quality, and provide habitat for small ground mammals and birds.

In collaboration with other companies, GPI delivered additional, specialized learning sessions for landowners, land managers and loggers. Some examples include:

- Wildlife and Fire Fire as a Manager's Tool
- First Steps for Managing Wildlife in Forested Lands
- Buzz on Pollinator Habitat Benefits to Birds, Bees, & Butterflies

Additionally, in 2022, the company conducted analysis of all globally ranked critically imperiled (G1) or imperiled (G2) species for its primary sourcing supply basins. A summary including ecosystem specific management recommendations to protect the habitats of these species was provided to all primary fiber suppliers. This process will be reviewed and updated annually to expand biodiversity habitat conservation.

These activities, working together, enable our suppliers to implement practices with positive benefits for biodiversity, water and soil, in the context of a changing climate.

#### Have any response to these impacts been implemented?

Yes

#### **Description of the response(s)**

Graphic Packaging will continue to provide continuing education and knowledge to landowners, loggers, and land managers as it directly empowers our suppliers to make informed and educated decisions with the resources shared by our industry. We expect the sharing of knowledge to create more sustainable wood baskets that increase the resiliency of our supply chain.



Graphic Packaging conducts tract inspections on at least 50% of our wood suppliers each year. In 2022 we completed inspections with 120% of targeted suppliers for our Macon mill, and with 143% of targeted suppliers for our West Monroe mill. The inspections address the presence of sensitive ecosystems, labor practices, and use of forest best management practices. Any findings during the inspection are shared with the supplier and the issue must be remediated by the supplier. In 2022 inspections, there were approximately 10 inspections where the company provided additional recommendations for mitigations to be implemented, resulting in enhanced practices in the forest.

# C15. Biodiversity

# C15.1

# (C15.1) Is there board-level oversight and/or executive management-level responsibility for biodiversity-related issues within your organization?

	Board-level oversight and/or executive management-level responsibility for biodiversity-related issues	Description of oversight and objectives relating to biodiversity
Row 1	Yes, both board-level oversight and executive management-level responsibility	Our Board of Directors, which includes our President and CEO, guides our purpose, values, and sustainability strategy, including biodiversity matters. In recognition of the importance of sustainability to the Company, we believe that a two-tiered level of oversight provides the best structure to integrate consideration of ESG and climate risks/opportunities into our overall business strategy and help us meet the changing demands of our stakeholders. As set forth in our Corporate Governance Guidelines, our Board is responsible for reviewing, approving, and monitoring business strategies and financial performance and ensuring appropriate oversight is in place. The Board fulfills these responsibilities through a number of practices, including: approval of annual operating and strategic long-range plans, review of results against such plans and review and approval of significant corporate actions. In addition, the Board is responsible for the oversight of our sustainability, sustainable forestry, and biodiversity strategy, governance standards, goals and performance and has assigned principal oversight of our sustainability policy and practices to the



N	Nominating and Corporate Governance Committee (NCGC).
le o it ro is	The NCGC of the Board considers current and emerging social and environmental trends, as well as major egislative and regulatory developments and other public policy issues that may impact our business operations or stakeholders. The NCGC also reviews the Company's policy and practices for consistency with its ESG and biodiversity commitments, including goals, performance metrics, mitigation plans, and public eporting and makes recommendations to the Board and management. O approach to managing biodiversity is addressed through our sustainable sourcing for wood fiber raw materials and wood fiber chain of custody certification.
F o c c s	Additionally, as a part of our certification to various standards of the Forest Stewardship Council (FSC), the Programme for Endorsement of Forest Certification (PEFC) and the Sustainable Forestry Initiative (SFI), the organization's management formally reviews certification program implementation, including the biodiversity components required by each standard, annually. This process is facilitated by the Vice President and Chief Sustainability Officer (CSO).  In 2022, the NCGC reviewed our approach for managing biodiversity impacts in our wood basket through their review of our 2021 ESG report.

# C15.2

## (C15.2) Has your organization made a public commitment and/or endorsed any initiatives related to biodiversity?

	Indicate whether your organization made a public commitment or endorsed any initiatives related to biodiversity	Biodiversity-related public commitments	Initiatives endorsed
Row	Yes, we have made public commitments	Commitment to respect legally designated protected areas	SDG
	and publicly endorsed initiatives related to biodiversity	Commitment to avoidance of negative impacts on threatened and protected species	Other, please specify



Commitment to no conversion of High areas  Commitment to no trade of CITES lists Other, please specify  GPI's Sustainable Forestry Policy, available, includes commitments to unacceptable and controversial sour	Forest Stewardship Council (FSC), Programme for Endorsement of Forest Certification (PEFC).  which is publicly avoid sourcing from
FSC, PEFC and SFI	

### C15.3

#### (C15.3) Does your organization assess the impacts and dependencies of its value chain on biodiversity?

#### Impacts on biodiversity

#### Indicate whether your organization undertakes this type of assessment

Yes

#### Value chain stage(s) covered

Upstream

### Tools and methods to assess impacts and/or dependencies on biodiversity

Other, please specify

We use a custom approach as described in "Please Explain"

#### Please explain how the tools and methods are implemented and provide an indication of the associated outcome(s)

Graphic Packaging uses certification to the Forest Stewardship Council (FSC), the Programme for Endorsement of Forest Certification (PEFC) and Sustainable Forestry Initiative (SFI) as its first line approach to assessing impacts on biodiversity. This includes the use of the FSC National Risk Assessment (NRA) for the US, which evaluates the impacts of forest management generally on a range of high conservation values (HCVs). Specific to biodiversity these the NRA assesses the impact to forest areas containing globally, regionally or nationally significant: concentrations of biodiversity values (e.g. endemism, endangered species, refugia); and/or large landscape-level forests where viable populations of most if not all naturally occurring species exist in natural patterns of distribution and abundance; forest areas that are in or



contain rare, threatened or endangered ecosystems forest areas that provide basic services of nature in critical situations (e.g. watershed protection, erosion control). Based on the NRA's assessment, the company implements a mitigation program, in partnership with the American Forest Foundation, the Forest Stewards Guild and the Longleaf Alliance. Additionally, the company has commissioned an additional analysis, conducted by a forest climate and sustainability consultant, to assess the risk of souring from controversial sources, according to PEFC and SFI. This includes review of Forest activities which are contributing to regional declines in habitat conservation and species protection.

(including biodiversity and special sites, Alliance for Zero Extinction sites and key Biodiversity Areas, threatened and endangered species). This system, too, includes a mitigation program to address any identified risks. Lastly, GPI commissioned a forest climate and sustainability consultant to conduct an analysis of all globally ranked critically imperiled (G1) or imperiled (G2) species for its primary sourcing supply basins. This analysis leveraged the use of the NatureServe Explorer Pro tool to identify species and habitats, geographically. A summary including ecosystem specific management recommendations to protect the habitats of these species has been provided to all primary fiber suppliers.

#### **Dependencies on biodiversity**

#### Indicate whether your organization undertakes this type of assessment

No and we don't plan to within the next two years

## C15.4

(C15.4) Does your organization have activities located in or near to biodiversity- sensitive areas in the reporting year?
Yes

## C15.4a

(C15.4a) Provide details of your organization's activities in the reporting year located in or near to biodiversity -sensitive areas.

Classification of biodiversity -sensitive area

Key Biodiversity Area (KBAs)



#### Country/area

United States of America

#### Name of the biodiversity-sensitive area

FSC National Risk Assessment Identifiers:

- Native Longleaf Pine Ecosys
- Late Successional Bottomland
- Hardwoods

#### KBAs:

- Shugart/Felsenthal Natl Wildlife Refuge
- Warren Prairie Natural Area
- East Kiasatchie
- Walter B. Jacobs Memorial Nature Park
- Catahoula-Dewey Wills-Three Rivers
- Fort Stewart Military Installation
- Altamaha Waterfowl Mgmt Area
- Okefenokee Natl Wildlife Refuge
- Piedmont Natl Wildlife Refuge
- Phinizy Swamp
- Fort Jackson

#### **Proximity**

Overlap

#### Briefly describe your organization's activities in the reporting year located in or near to the selected area

Several biodiversity sensitive areas lie within the broader sourcing area of the company's four fresh fiber facilities, where wood is harvested. The company has standing commitments not to source from these sites.

Using the Forest Stewardship Council (FSC) National Risk Assessment (NRA), the company's supply basins overlap with two known



ecosystems associated with High Conservation Values (HCVs): Native Longleaf Pine Systems and Late Successional Bottomland Hardwoods. The mapped regions where these ecosystems occur overlap with less than 25% of the company's fresh fiber supply area. To address the risk of harvesting in a manner that may impact these ecosystems, the company implements a mitigation program, in partnership with the American Forest Foundation, the Forest Stewards Guild and the Longleaf Alliance.

Additionally, several Key Biodiversity Areas (KBAs) are located within the regions of GPI's supply basins. Each of these sites has been reviewed for potential impacts. These sites are all under management by the US federal government, the state government or a county/parish in Arkansas, Georgia, South Carolina or Louisiana. All of these sites are managed with an objective of conservation and/or are under protection by law. Additionally, the triggering species for these sites is often, though not always, an aquatic bird species or not associated with forests. As such, the flow of fiber from these sites and in a detrimental manner is highly unlikely.

# Indicate whether any of your organization's activities located in or near to the selected area could negatively affect biodiversity

Yes, but mitigation measures have been implemented

#### Mitigation measures implemented within the selected area

Site selection

Project design

Scheduling

Physical controls

Operational controls

Abatement controls

Restoration

# Explain how your organization's activities located in or near to the selected area could negatively affect biodiversity, how this was assessed, and describe any mitigation measures implemented

Several biodiversity sensitive areas lie within the broader sourcing area of the company's four fresh fiber facilities, where wood is harvested. Because of the sourcing in this general region, harvesting could impact sensitive habitats. To address this risk, the company has implemented a multitiered approach: First, the company has standing commitments not to source from these sites.



Second, this requirement not to source from these sites is included in specifications to suppliers.

Third, the company has a standing policy to only work with loggers trained on practices to protect biodiversity through use of Best Management Practices (BMPs).

Then, each Key Biodiversity Area (KBA) located within the regions of GPI's supply basins has been reviewed and assessed for likelihood of sourcing and potential impact. These sites are all under management by the US federal government, the state government or a county/parish in Arkansas, Georgia, South Carolina or Louisiana. All of these sites are managed with the objective of conservation and/or are under protection by law. Additionally, the triggering species for these sites is often, though not always, an aquatic bird species or not associated with forests. As such, the flow of fiber from these sites and in a detrimental manner is highly unlikely.

Next, for ecosystems associated with High Conservation Values (HCVs) identified by the FSC National Risk Assessment (NRA) (Native Longleaf Pine Systems and Late Successional Bottomland Hardwoods), the company implements a mitigation program, in partnership with the American Forest Foundation, the Forest Stewards Guild and the Longleaf Alliance. These efforts include restoration activities and targeted outreach and education to family landowners and smallholders, which provide a large portion of fiber furnish into the facilities.

## C15.5

#### (C15.5) What actions has your organization taken in the reporting year to progress your biodiversity-related commitments?

	Have you taken any actions in the reporting period to progress your biodiversity-related commitments?	Type of action taken to progress biodiversity- related commitments
Row	Yes, we are taking actions to progress our biodiversity-related	Land/water protection
1	commitments	Land/water management
		Species management
		Education & awareness
		Other, please specify
		Our North America operations source wood fiber under the SFI Certified Sourcing and FSC Controlled Wood standards.



# C15.6

#### (C15.6) Does your organization use biodiversity indicators to monitor performance across its activities?

	Does your organization use indicators to monitor biodiversity performance?	Indicators used to monitor biodiversity performance	
Row	Yes, we use indicators	State and benefit indicators	
1		Pressure indicators	
		Response indicators	
		Other, please specify	
		GIS and NatureServe tools to screen for species, deforestation, illegal logging, etc. We use state reports to monitor the implementation biodiversity protection practices and partner with conservation organizations on biodiversity performance.	

# C15.7

(C15.7) Have you published information about your organization's response to biodiversity-related issues for this reporting year in places other than in your CDP response? If so, please attach the publication(s).

Report type	Content elements	Attach the document and indicate where in the document the relevant biodiversity information is located
In voluntary sustainability report or other voluntary communications	Content of biodiversity- related policies or	https://www.graphicpkg.com/documents/2021/12/forest-fiber-certification-policy.pdf/ p.1
	commitments Details on biodiversity indicators Biodiversity strategy	See the Supply Chain Sustainability & Sustainable Forestry sections in our annual ESG report: https://www.graphicpkg.com/esg-disclosures/



# C16. Signoff

# C-FI

(C-FI) Use this field to provide any additional information or context that you feel is relevant to your organization's response. Please note that this field is optional and is not scored.

n/a

# C16.1

(C16.1) Provide details for the person that has signed off (approved) your CDP climate change response.

	Job title	Corresponding job category
Row 1	President and CEO	Chief Executive Officer (CEO)

# **Submit your response**

In which language are you submitting your response?

English

Please confirm how your response should be handled by CDP

	I understand that my response will be shared with all requesting stakeholders	Response permission
Please select your submission options	Yes	Public