

C0. Introduction

C0.1

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

Graphic Packaging Holding Company (together with its subsidiaries, "Graphic Packaging" or the "Company") is committed to providing consumer packaging that makes a world of difference. The Company is a leading provider of paper-based packaging solutions for a wide variety of products to food, beverage, foodservice, and other consumer products companies. The Company operates on a global basis, is one of the largest producers of folding cartons in the United States ("U.S.") and holds leading market positions in coated unbleached kraft paperboard ("CUK"), coated-recycled paperboard ("CRB") and solid bleached sulfate paperboard ("SBS"). The Company's customers include many of the world's most widely recognized companies and brands with prominent market positions in beverage, food, food service, and other consumer products. The Company strives to provide its customers with packaging solutions designed to deliver marketing and performance benefits at a competitive cost by capitalizing on its low-cost paperboard mills and carton manufacturing plants, its proprietary carton, container and packaging designs, and its commitment to quality and service.

Sustainability is one of the strongest trends in the packaging industry today. Given the significant sustainability characteristics of paperboard, we are uniquely positioned to capture new opportunities with our global fiber-based packaging platform. We have a long history of environmental and social responsibility practices at the Company and we continue to improve our manufacturing processes.

At Graphic Packaging, our packaging solutions are made primarily from renewable wood fiber, and most of our paperboard packaging and food service products can be recycled today. We intend to leverage our industry-leading sustainability profile and continue 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, non-renewable energy usage, and mill water effluents by 15%, and reduce the use of low-density polyethylene (LDPE) by 40%.

In addition, we have established a 100% recyclability goal for all Graphic Packaging products. We are committed to continuous improvement to benefit the communities in which we live and work, and we will provide updates on milestones achieved in our annual sustainability reports.

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 2020 Annual Report on Form 10-K, and in other filings with the Securities and Exchange Commission.

C0.2

**(C0.2) State the start and end date of the year for which you are reporting data.**

	Start date	End date	Indicate if you are providing emissions data for past reporting years	Select the number of past reporting years you will be providing emissions data for
Reporting year	January 1 2020	December 31 2020	No	<Not Applicable>

C0.3

**(C0.3) Select the countries/areas for which you will be supplying data.**

- Australia
- Brazil
- Canada
- France
- Germany
- Italy
- Mexico
- Netherlands
- New Zealand
- Spain
- United Kingdom of Great Britain and Northern Ireland
- United States of America

C0.4

**(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.**  
Financial 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	Elsewhere in the value chain only [Agriculture/Forestry/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 5 million hectares. Therefore, our managed land represents 0.05% of the forest land required to service the Company' mills. Graphic Packaging has no material direct emissions associated with the agricultural/forestry activities undertaken to harvest the resources used at our facilities.

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

**(C-AC0.6f/C-FB0.6f/C-PF0.6f) Why are emissions from distribution activities within your direct operations not relevant to your current CDP climate change disclosure?**

**Row 1**

**Primary reason**

Evaluated but judged to be unimportant

**Please explain**

Graphic Packaging has a small fleet of trucks servicing several UK facilities. We assessed this fleet in context to our total distribution network and since the Company does not have its own truck fleet for the operations outside of the UK, the emissions from distribution activities have a limited direct impact on our operations. However, Graphic Packaging does distribute our products with 3rd parties. The related emissions are relevant to our supply chain.

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. Over 70% of the paperboard and paperboard packaging utilize wood as a raw material. Revenue from our coated recycled paperboard packaging products and plastic packaging is not included.

**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(s)	Please explain
Board-level committee	Our Board of Directors sets expectations by demonstrating our culture and guiding our purpose, values, sustainability and strategy relative to climate-change. 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 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. The Nominating and Corporate Governance Committee (NGC) of the Board was responsible for the oversight and review of the Company's sustainability policy and practices toward climate-related issues including mitigation. This includes a review of the Company's sustainability targets, public reporting and recommendations to leadership. The Board has the ultimate responsibility to drive accountability and performance. An example of a climate-related decision made by the Committee: In 2020, the NCG reviewed and provided guidance and agreement on establishing Science Based Targets by the end of the year 2022.

**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	Scope of board-level oversight	Please explain
Scheduled – all meetings	<ul style="list-style-type: none"> <li>Reviewing and guiding strategy</li> <li>Reviewing and guiding risk management policies</li> <li>Reviewing and guiding annual budgets</li> <li>Reviewing and guiding business plans</li> <li>Monitoring implementation and performance of objectives</li> <li>Overseeing major capital expenditures, acquisitions and divestitures</li> </ul>	<Not Applicable>	<p>The Company's Board of Directors Audit Committee 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 Nominating and Corporate Governance Committee (NGC) of the Board of Directors is responsible for the oversight and review of the Company's sustainability policy and practices for consistency with its responsibility toward sustainability and climate-related risks and opportunities. This includes the review of the Company's sustainability targets and sustainability public reporting. The NGC makes recommendations to the Board and management as it deems advisable and has sustainability and ESG as standard agenda items at each meeting. In November 2020, Management updated the Board and the NGC as part of its annual sustainability update and review of the Company's supplemented sustainability report. The NGC also oversees major capital expenditures, like the installation of a new coated recycled board (CRB) machine at our Kalamazoo, Michigan site as part of our transformational CRB platform optimization project. The optimization of our platform is expected to reduce greenhouse gases by 16-20%, purchased fossil fuel energy by 18 percent, and water effluent by 33 percent in our CRB platform. The Committee reviews the company-wide long-range plan and budget each October. It also reviews and approves the Company's ESG report.</p>

C1.2

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

Name of the position(s) and/or committee(s)	Reporting line	Responsibility	Coverage of responsibility	Frequency of reporting to the board on climate-related issues
Other C-Suite Officer, please specify (EVP, General Counsel & Secretary)	<Not Applicable>	Both assessing and managing climate-related risks and opportunities	<Not Applicable>	More frequently than quarterly
Other C-Suite Officer, please specify (Vice President of Government Affairs and Sustainability)	<Not Applicable>	Both assessing and managing climate-related risks and opportunities	<Not Applicable>	More frequently than quarterly
Chief Executive Officer (CEO)	<Not Applicable>	Both assessing and managing climate-related risks and opportunities	<Not Applicable>	More frequently than quarterly
Other, please specify (The Executive Leadership Team)	<Not Applicable>	Managing climate-related risks and opportunities	<Not Applicable>	More frequently than quarterly
Other, please specify (Senior Vice President of Global Innovation and New Business Development)	<Not Applicable>	Both assessing and managing climate-related risks and opportunities	<Not Applicable>	More frequently than quarterly

C1.2a

**(C1.2a) Describe where in the organizational structure this/these position(s) and/or committees lie, what their associated responsibilities are, and how climate-related issues are monitored (do not include the names of individuals).**

The CEO has ultimate responsibility for the implementation of sustainability practices across the Company. The CEO drives the strategy to achieve the Company's GHG targets and meets with the Executive Leadership Team on more than a quarterly basis to monitor progress towards those goals.

Graphic Packaging's Executive Vice President, General Counsel and 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 Vice President of Government Affairs and Sustainability, 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.

The Vice President of Government Affairs and Sustainability's background includes package engineering, purchasing, marketing, business development, government affairs and sustainability and is uniquely qualified to assess the impacts of climate change on the operations and sales of the Company. He is accountable for, developing strategy and executing the day-to-day requirements to meet the Company's sustainability goals. Further, he is uniquely qualified to engage with investors, customers, suppliers and other external stakeholders to ensure comprehensive value chain execution of the sustainability program.

Climate-related issues are formally monitored on a monthly basis and also in real time. A report on 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 2018 -2019, due to an extremely wet period, access to forests for harvesting activities servicing certain virgin mills was virtually impossible and thus alternative wood sources outside our traditional wood basket were identified. The countermeasures were identified in real time with the data from the monthly review. No events that occurred in 2020 required countermeasures.

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	Type of incentive	Activity incentivized	Comment
Corporate executive team	Monetary reward	Emissions reduction target	Targets are established for key environmental metrics. These environmental metrics are monitored and tied to financial and productivity metrics, which also have monetary incentives associated with them. The metrics are monitored monthly in our Mill division as that business unit represents a significant percentage of the Graphic Packaging environmental profile.
All employees	Monetary reward	Emissions reduction target	Environmental KPIs are embedded into the performance management framework and – along with other metrics – serve as a basis for remuneration and salary reviews.

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 (years)	To (years)	Comment
Short-term	0	1	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	Climate related risks and opportunities are identified, assessed, and planned for annually in two distinct processes. The annual enterprise strategic risk assessment process and 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. The CEO and Board oversee the sustainability office and the Audit Committee oversees the enterprise risk management function, activities and reporting.
Long-term	3	5	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. The Board oversees the sustainability program, the Nominating and Corporate Governance Committee of the Board of Directors is responsible for the oversight and review of our sustainability program and the Audit Committee oversees the enterprise risk management function, activities and reporting.

C2.1b

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

Graphic Packaging defines significant financial impact as a loss of key suppliers or customers, sustained serious loss in market share or Company value with a long-term impact on reputation, resulting litigation and/or significant regulatory/legislative response. 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 or customer concern. A substantive financial impact of relatively high magnitude could occur because of a large change in one of these aspects, or small changes in all three combining to create a larger impact.

As a matter of policy Graphic Packaging does not quantify a material financial and operational impact in a general statement. The Company does disclose 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 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 detailing the damages and provided an early anticipated impact to first quarter of 2021 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**

Our comprehensive risk identification and management process provides necessary input to inform our strategic planning and business improvement goals. We utilize a deliberate Risk Management System that includes formal policies, procedures, and governance that defines and communicates our policy regarding the management and oversight of risk that is subject to oversight and execution by various stakeholders. It assures effective identification, analysis, prioritization, and management of risks. After we identify material risks and opportunities, we evaluate and prioritize them using a scaled and weighted approach. The defined risk criteria are: Significance of impact — the potential effect of an event Occurrence likelihood — the possibility a given event will take place Speed of impact or velocity — the time between the occurrence of an event and its impact We have a robust internal control environment and seek feedback on the effectiveness of applicable control over material risks. To communicate transparently, we include key risk factors, including factors related to climate change, in our Form 10-K. The Board, Audit Committee, and management are responsible for identifying, mitigating, and managing risks across the organization. The CEO and Board oversee the Sustainability office and the Audit Committee oversees the enterprise risk management function, activities, and reporting. The ELT reviews priorities and results in workshops, staff meetings, and communicates these electronically to multiple levels of leadership. The Audit Committee reviews the enterprise strategic risk assessment annually. This includes climate-related risks at operational levels, energy use, material supply, production, transportation, human resources, and weather/natural risks. Changes to risk are reported twice per year to the Audit Committee based on input from the risk owners and senior leadership. Risks are identified through a variety of people, process, methodologies, tools and resources, including but not limited to: professional and trade related business associations and their publications and journals; input from the Board of Directors, C-Suite leadership and other Company leadership, stakeholders, professional services firms, industry alerts, government agencies communications, employee communication, media reports, informal discussions, focused workshops or scenario analysis, the Company Alert line and various conferences or round tables. Additionally, active programs exist to monitor the Company's customer base and end-consumer responses to paperboard products. We seek to continue to improve the image and recyclable attributes of all of the Company's packaging in a number of ways, including by participating on the Board of Directors for the Paper & Packaging Board, an organization focused on improving the image of paperboard products. The Board receives regular updates on sustainability, social responsibility, and EH&S compliance matters. Overall responsibility for our sustainability and social responsibility strategy is with our ELT. The VP of Government Affairs and Sustainability provides the strategic direction. This individual is a member of the extended ELT and reports regularly on key programs to the CEO and Board of Directors. Our VP of Health, Safety and Environmental (HS&E) reports to our CEO on significant projects and compliance matters. The General Counsel regularly updates the Board with HS&E and sustainability reports as well as annual compliance reports. In November 2020, the NGC received its annual update of the ESG program and provided feedback as part of that committee's oversight responsibilities. We have specific teams that meet quarterly to support and play a key role in climate change related risk management. These teams are assigned responsibilities for helping to develop corporate policy and regulatory positions. Our HS&E Steering Committee discusses sustainability matters every 60 days and reports its progress to the Board of Directors. Our Global Sustainability and Social Steering Committee is a cross-functional group that includes leaders of Sustainability, Legal and HRs, as well as site and facility managers, from three key regions and promotes responsibility globally. Our Compliance & Risk Committee is a cross-functional group that develops, implements and provides guidance to maintain an effective compliance and ethics program. This program is designed to promote an organizational culture that encourages law abiding and ethical conduct. The Compliance & Risk Committee works together to assess and address risks by monitoring legal and regulatory changes and developing responsive policies and training initiatives. Our Certification Committee is a cross-functional group that reviews the annual public Company filings that include the risk related disclosures. In addition, we evaluate our programs and monitor progress towards our commitments to achieve our goals including our Sustainability Vision 2025 through annual and periodic Board ESG updates, Compliance reports, and Executive Leadership updates. Graphic Packaging currently utilizes a formal risk assessment process to help identify and mitigate risks associated to physical climate-related impacts. For example, we frequently assess appropriate levels of property insurance to minimize financial implications related to damages from flooding and other natural disasters. These events happen, on average, every 1-3 years. The Company recently conducted a case study focused on sites located in Louisiana, California, Missouri, and North Carolina, 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. 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 understands that we could face potential transitional risks related to GHG emissions. In order to mitigate these risks, we have sought to utilize energy as efficiently as possible within our operations. For example, we invest capital and resources on an annual basis in a variety of energy efficiency initiatives across our operations so that we are well positioned if there are market and/or cost implications related to GHG emissions, and in pursuit of our continuous GHG reduction targets. As a case study: in 2019 we began the installation of a new world-class Coated Recycled Board (CRB) machine in our Kalamazoo, MI site. The new machine is part of our transformational, \$600 million CRB platform optimization investment and will have a positive environmental impact by reducing greenhouse gas emissions, water usage, purchased energy, 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 has determined that current regulation risks related to climate change are included in our annual risk assessment. For example, since 2019 we have disclosed GHG information under the UK SECR scheme. Non-compliance may lead to penalties up to 40K GBP. 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 mitigate these risks through its methodology.
Emerging regulation	Relevant, always included	Graphic Packaging has determined that emerging regulation risks related to climate change are included in our risk assessments and continue to be evaluated through ongoing informal reviews that occur as part of normal business practices. 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 2020 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 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 has determined that technology-related risks related to climate change are included in our risk assessments and are evaluated 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 higher increases in competition. If we do not invest the right resources to ensure we're utilizing the most appropriate technologies to meet consumer's demand, this could have an adverse impact on our bottom line. Therefore, in 2020 we began the installation of a new world-class Coated Recycled Board (CRB) machine in our Kalamazoo, MI site that will result in cost and quality advantages for years to come. The \$600 million investment will have a positive environmental impact by reducing global greenhouse gas emissions by 4% annually, as well as water usage and purchased energy by 1% each. The Company expects the investment will be capacity neutral by eliminating higher cost production at other facilities and will deliver an incremental \$100 million in annualized EBITDA once fully commercial in 2022. 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.
Legal	Relevant, always included	Graphic Packaging has determined that legal risks related to climate change are included in our risk assessments and are evaluated through ongoing informal reviews that occur as part of normal business practices. 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 has determined that market-related risks related to climate change are included in our risk assessments and are evaluated through ongoing informal reviews that occur as part of normal business practices. As a paperboard manufacturer, we utilize 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. For example, in 2020 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. The reduction will be in the form of substituting the LDPE with an advanced barrier technology. With the market expectation for an alternative to LDPE, there is both a risk and an opportunity. If we were unable to develop the advanced coating or another packaging supplier developed and implemented advanced coating before Graphic Packaging this could impact the Company's Foodservice business which was approximately 20% of 2020 revenue.
Reputation	Relevant, always included	Graphic Packaging has determined that reputational risks related to climate change are included in our risk assessments and are evaluated 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 preference shifts towards more sustainable packaging, we may face higher increases in competition. Therefore, we continuously monitor reputational risks, for example, we assess our customers' feedback on an ongoing basis to ensure that we are adapting to the market. In 2020 Graphic Packaging continued to implement learnings from our 2019 Voice-of-Customer (VOC) survey. A VOC survey has similar attributes to a Materiality Assessment but addresses innovation and supply chain along with the sustainability. As with other VOC surveys Graphic Packaging was rated in the 90's (scale of 0 – 100 with 100 being a high ranking). These rankings from the VOC as conducted every 3 years confirms that we are meeting our customer's sustainability expectations and confirms that our reputation is viewed favorably by major consumer branded customers. In March of 2021 Graphic Packaging completed a materiality assessment that was initiated in November 2020 and analyzes ESG matters as they relate to GPI's business strategy.
Acute physical	Relevant, always included	Graphic Packaging has determined that acute physical risks related to climate change are included in our risk assessments and are evaluated through ongoing informal reviews that occur as part of normal business practices. For example, although 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. The impact on operations was minimal and the costs of the damage were approximately \$10 million. No major acute physical risks impacted Graphic Packaging in 2021. The 2021 winter storm and freezing conditions that impacted Texas and Louisiana in 2021 impacted our regional supply chain and caused a disruption at our Texarkana mill. The consequences of the storm are still being assessed at the time of writing this response. As shown in our response to the events at West Monroe, 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. We are 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. The magnitude of this risk has been evaluated and determined to have a potential impact, but with low probability thus has limited risk in relation to other business-related risks. Our woodbaskets may be impacted by heavy rain impacting our ability to access wood nearby and compelling expansion of our supply area beyond the local basket.
Chronic physical	Relevant, always included	Graphic Packaging has determined that chronic physical risks related to climate change are included in our risk assessments and are evaluated through ongoing informal reviews that occur as part of normal business practices. For example, although 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, and potentially impact our customer's ability to operate. 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	Increased severity and frequency of extreme weather events such as cyclones and floods
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**Primary potential financial impact**

Increased direct costs

**Climate risk type mapped to traditional financial services industry risk classification**

<Not Applicable>

**Company-specific description**

Graphic's operations face climate-related physical risks related to extreme weather events and increased flooding. If the severity of extreme weather events increases and results in any of our facilities becoming inoperable it could have a direct impact on our production, sales, and / or costs. For example, sites located in Louisiana, California, Missouri, and North Carolina have experienced 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. As an example, one of the wood baskets – which 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 of our traditional wood supply region. Additionally, while wildfires in California did not affect regional facilities, some local Graphic Packaging employees' homes were damaged. This natural disaster resulted in shifts in employee availability, schedules, and some operations while employees regained security for their families. Insurance policies are in place to mitigate potential loss or damage and recovery time. Crisis management procedures are in place and have been tested. Multiple sites are qualified to produce products and allow manufacturing redundancy. Reliability Center Maintenance teams are in place to monitor and perform maintenance over assets. Pumps and other 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 at these locations.

**Time horizon**

Short-term

**Likelihood**

Unlikely

**Magnitude of impact**

Low

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

Yes, an estimated range

**Potential financial impact figure (currency)**

<Not Applicable>

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

3000000

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

5000000

**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 \$5 million. Although viewed as unlikely, 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, the financial impact figure is between  $1 \times \$3,000,000 = \$3,000,000$  and  $1 \times \$5,000,000 = \$5,000,000$

**Cost of response to risk**

750000

**Description of response and explanation of cost calculation**

It is expected that financial impacts related to extreme weather events are managed in an effective manner so that the Company's performance is not severely impacted. We continue to manage this through our risk management process that seeks to ensure that the appropriate insurance is maintained, and proactive actions are taken to minimize impacts. We have insurance in the place where needed and perform an annual insurance assessment and review that is reported up to the Audit Committee. In 2020, this review resulted in the purchase of additional insurance for one of our manufacturing facilities. In addition, to create a water dam around key facilities, temporary barriers are available to deploy as necessary. Reliability experts and maintenance personnel are staffed and at the ready, if a crisis occurs. Critical parts are maintained to ensure production can be commenced as quickly as possible. Anti-flood protection devices such as pumps are stored and ready to reduce the impact of water. Several of Graphic Packaging plants have experienced a flood event and each event was addressed effectively with redundant capacity and proactive measures where possible. The figure provided is an estimate based on learnings from historic weather events which have caused damage and interruption to our operations. Most notably the incident at the site in Pacific, Missouri. The flood caused damage to the site, requiring us to move production equipment and redirect resources into repairing the damage caused. Graphic Packaging has invested in flood mitigation measures as appropriate and the risk management program is monitored and reviewed on an annual basis. The cost of administering our risk management program, which includes the internal costs of administering the program as well as the annual cost of the insurance broker is between \$500,000 and \$1,000,000 annually:  $1 \times \$500,000 = \$500,000$  to  $1 \times \$1,000,000 = \$1,000,000$ , average of \$500,000 and \$1,000,000 = \$750,000

**Comment**

**Identifier**

Risk 2

**Where in the value chain does the risk driver occur?**

Direct operations

**Risk type & Primary climate-related risk driver**

Market	Changing customer behavior
--------	----------------------------

**Primary potential financial impact**

Decreased revenues due to reduced demand for products and services

**Climate risk type mapped to traditional financial services industry risk classification**

<Not Applicable>

**Company-specific description**

A significant proportion of our customers are increasingly looking to source sustainable packaging for their products. The risk is a loss of sales for Graphic Packaging if we fail to meet these customer expectations. Sustainability represents one of the strongest trends in the packaging industry and we continue to focus on developing more sustainable and eco-friendly manufacturing processes and products. Graphic Packaging has a strong innovation pipeline with packaging solutions that are targeted for sustainability. 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. The risk is that our innovative products are not adopted by the marketplace.

**Time horizon**

Medium-term

**Likelihood**

Likely

**Magnitude of impact**

Low

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

Yes, a single figure estimate

**Potential financial impact figure (currency)**

400000000

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

<Not Applicable>

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

<Not Applicable>

**Explanation of financial impact figure**

We anticipate that investments in sustainable innovation will have a positive impact on revenue and as communicated in our 2025 Vision are targeted to generate \$400 - \$700 million over the 2020 to 2025 period. 1 five year period \* \$400,000,000 = \$400,000,000

**Cost of response to risk**

10200000

**Description of response and explanation of cost calculation**

The 2020 cost of research and development as quoted in the 10-K was \$10,200,000. 1 year \* \$10,000,000 = \$10,200,000

**Comment**

**Identifier**

Risk 3

**Where in the value chain does the risk driver occur?**

Direct operations

**Risk type & Primary climate-related risk driver**

Emerging regulation	Mandates on and regulation of existing products and services
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**Primary potential financial impact**

Decreased revenues due to reduced demand for products and services

**Climate risk type mapped to traditional financial services industry risk classification**

<Not Applicable>

**Company-specific description**

The emerging risk of single-use packaging regulation may be introduced in the United States and Europe. This could impact the Company's Foodservice business which was approximately .1% of food service business revenue. Graphic Packaging is working continuously on product innovations which 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.

**Time horizon**

Long-term

**Likelihood**

Likely

**Magnitude of impact**

High

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

Yes, a single figure estimate

**Potential financial impact figure (currency)**

1300000

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

<Not Applicable>

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

<Not Applicable>

**Explanation of financial impact figure**

We estimate that potential single use packaging regulation (for example in the west coast of the United States) could have an impact on 1% of our foodservice packaging business, which represented approximately 20% of total revenue. It is difficult to estimate the financial impact in view of the scope of potential outcomes, including increased recycling of single use packaging, a focus on innovation, and the value that single use packaging presents when considering mitigating COVID-19 spread. Based on market conditions and the advocacy work that Graphic Packaging is engaged the Company believes that a negative impact is remote. If potential regulation were to be put into law the impact is estimated to be immaterial. Total revenue: \$65 million \* % of total revenue that represents foodservice business: 20% \* single-use packaging portion of foodservice business sales: 0.1% = \$1,300,000.

**Cost of response to risk**

10200000

**Description of response and explanation of cost calculation**

Graphic Packaging is driving innovative, sustainable paperboard solutions and practices. We are developing new products that incorporate the latest materials and processes to meet or exceed our customers' performance criteria with the right economics. Increased investment in new paperboard solutions and barrier coatings, through

R&D and design, is resulting in increased adoption of new solutions replacing plastic materials. For example, Graphic Packaging has a line of compostable single use food service packaging sold under its "Ecotainer" brand. This innovative package structure meets most of the current and proposed local regulations for being compostable or recyclable. In 2020, Graphic Packaging spent \$10,200,000 on R&D, all of which contributes to developing innovative paperboard solutions and practices. 100% \* \$10,200,000 = \$10,200,000

**Comment**

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C2.4

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**(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

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**(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 and/or expansion of low emission goods and services

**Primary potential financial impact**

Increased revenues resulting from increased demand for products and services

**Company-specific description**

Sustainability represents one of the strongest trends in the packaging industry and the Company focuses on developing sustainable and eco-friendly manufacturing processes and products. The Company's strategy is to combine sustainability with innovation to create new packaging solutions for its customers. The Company is positioned well in the market as a wood fiber-based packaging company. We aspire to create the ultimate package that is made from renewable materials, with renewable energy that is recyclable or compostable. We consider the full life cycle of the package and product that it protects. With each innovation challenge, we assess the current package's position on the Package Sustainability Continuum and identify areas where an innovative approach will move that package closer to our aspirational goal. Our innovation efforts center on new wood-fiber based packaging solutions that we believe are more sustainable, with more renewable materials and recyclable than existing alternatives. Our efforts offer enhanced convenience features for consumer and brand building opportunities for our customers. Across 2020 we have continued to develop our range of products which look to have a positive environmental impact. We are focusing on providing wood-fiber based solutions to the problems surrounding single-use plastics. In particular, we have three products, KeelClip, PaperSeal, and Ecotainer, which provide solutions to the beverage and foodservice. These products are a couple of several sustainable packaging solutions that will support our revenue of \$400 - \$700 million over the period of 2020 – 2025 for our innovation efforts.

**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)**

<Not Applicable>

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

400000000

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

700000000

**Explanation of financial impact figure**

In our 2025 Vision we have targeted revenue of \$400 - \$700 million over the period of 2020 – 2025 for our innovation efforts. This figure has been based on assessment of user service demand for sustainable packaging. \$400,000,000 \* one targeted revenue = \$400,000,000. \$700,000,000 \* one targeted revenue = \$700,000,000.

**Cost to realize opportunity**

10200000

**Strategy to realize opportunity and explanation of cost calculation**

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 also keep abreast of consumer expectations to ensure that we're meeting preferences as they continue to shift towards more sustainable packaging. As detailed in our 10k, our 2020 R&D investment is \$10.2 million, all of which contributes to developing innovative paperboard solutions and practices. 100% \* \$10,200,000 = \$10,200,000.

**Comment**

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

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**Identifier**

Opp2

**Where in the value chain does the opportunity occur?**

Direct operations

**Opportunity type**

Resource efficiency

**Primary climate-related opportunity driver**

Use of more efficient production and distribution processes

**Primary potential financial impact**

Reduced indirect (operating) costs

**Company-specific description**

As a company we're always striving to improve our resource efficiency at each facility. Over the course of the year we have identified areas for improvement and looked to act on these where appropriate. We understand that improvements in our processes will lead to a reduction in both energy consumption and GHG emissions. In 2020 for example, we began the installation of a transformational \$600 million investment in Kalamazoo, Michigan that will result in cost and quality advantages for years to come. The new world-class Coated Recycled Board (CRB) machine will have a positive environmental impact by reducing greenhouse gases, water usage and purchased energy. Our new investment strengthens our leadership across the industry and will yield quality and efficiency enhancements.

**Time horizon**

Short-term

**Likelihood**

Likely

**Magnitude of impact**

Medium-high

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

Yes, a single figure estimate

**Potential financial impact figure (currency)**

100000000

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

<Not Applicable>

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

<Not Applicable>

**Explanation of financial impact figure**

We expect to generate \$100 million in incremental EBITDA once the new paper machine is fully commercial in 2022. This figure has been provided following a full market assessment of current future demand to move product range to more sustainable packaging products.  $\$100,000,000 * 1 \text{ year} = \$100,000,000$

**Cost to realize opportunity**

600000000

**Strategy to realize opportunity and explanation of cost calculation**

Graphic Packaging is always looking at opportunities to improve our resource efficiency. Our biggest investment and main driver for resource efficiency has been at our Kalamazoo, Michigan site. This investment will result in cost and quality advantages for years to come. The cost to realize opportunity reflects the size of the investment made in the Kalamazoo site - \$600,000,000.  $\$600,000,000 * \text{one time investment} = \$600,000,000$ .

**Comment**

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**Identifier**

Opp3

**Where in the value chain does the opportunity occur?**

Direct operations

**Opportunity type**

Energy source

**Primary climate-related opportunity driver**

Use of lower-emission sources of energy

**Primary potential financial impact**

Reduced direct costs

**Company-specific description**

As a company, we are committed to using renewable energy sources to help us reduce our emissions. We have implemented targets into our Sustainability Vision of reducing both our greenhouse gas emissions and our non-renewable energy consumption by 15% by 2025. Where possible, we aim to generate our own energy and reduce our reliance on the electrical grid. This will allow us to be in control of our own energy supply and therefore reduce the cost of our energy demand. We would also have the opportunity to sell any surplus energy produced at sites back into the electricity grid. The investment will support our commitment to our sustainability vision 2025 with solar power at selected European facilities like that in Sneek, NL. This investment will reduce fossil fuel electricity needs and reduce the emissions associated with this site.

**Time horizon**

Short-term

**Likelihood**

Very likely

**Magnitude of impact**

Medium-high

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

Yes, a single figure estimate

**Potential financial impact figure (currency)**

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60600

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

<Not Applicable>

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

<Not Applicable>

**Explanation of financial impact figure**

Solar panels have been assessed for installation at the Sneek, NL, facility. They are forecast to produce 50% of the site's electricity consumption. The figure provided is roughly half of the electricity spend at that site. The cost of the investment is expected to be recovered over time with 12% less electricity costs at the facility. In 2020, the cost of electricity for the Sneek facility was \$505,000.  $\$505,000 * 12\% = \$252,500$ .

**Cost to realize opportunity**

3780

**Strategy to realize opportunity and explanation of cost calculation**

Graphic Packaging assesses projects that will reduce our environmental profile as part of our Sustainability Visions 2025. A project to add solar panels to our Sneek, NL facility was under assessment in 2020 and is pending for a potential installation in 2021 – 2022. The solar panels will provide electricity to the Sneek carton manufacturing facility and increase the Company's use of renewable energy. The arrangement with the vPPA provider outlines that 1-2% of the electricity costs recovered go to the provider to cover the cost of installation and other costs.  $\$252,000 * 1\% = \$2,520$  to  $\$252,000 * 2\% = \$5,040$  – average of this range is \$3,780

**Comment**

**C3. Business Strategy**

**C3.1**

**(C3.1) Have climate-related risks and opportunities influenced your organization's strategy and/or financial planning?**

Yes, and we have developed a low-carbon transition plan

**C3.1a**

**(C3.1a) Is your organization's low-carbon transition plan a scheduled resolution item at Annual General Meetings (AGMs)?**

	Is your low-carbon transition plan a scheduled resolution item at AGMs?	Comment
Row 1	No, and we do not intend it to become a scheduled resolution item within the next two years	

**C3.2**

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

No, but we anticipate using qualitative and/or quantitative analysis in the next two years

**C3.2b**

**(C3.2b) Why does your organization not use climate-related scenario analysis to inform its strategy?**

While Graphic Packaging has utilized scenario-based analysis to help evaluate climate-related risks as part of their overall enterprise strategic risk management process, this is currently not being done on a recurring or regular basis. The company will continue to consider climate-related scenario analysis to inform our strategy as one of several tools to inform our strategy. We did conduct a Climate Change Enterprise Risk Assessment in 2020. The results of that assessment confirmed that we should continue to prioritize market place concerns with one of our major product lines. In addition, the company continues to react in real time to climate related events. As an example the wood purchases that occurred in late 2018 and 2019 required significant actions to mitigate supply issues. Due to an extremely wet period, access to forests that were identified for harvest was impossible and thus alternative wood sources, outside our traditional wood basket were identified. The countermeasures were identified in real time with the data from our monthly review. Visibility into the issues in real time is important and a cross functional team was established to provide visibility and react appropriately. While we do utilize a five year forward view with associated financial modelling related to these topics of concern, we haven't fully integrated climate-related scenario analysis as part of our overall business strategy.

As we start assessing risks and opportunities in further depth, we will seek to include climate-related scenario analysis as part of our enterprise strategic risk management process. this process utilizes an Enterprise Risk Assessment nd Climate Change Enterprise Risk Assessment. The assessments are conducted with the assistance of KPMG and the results routinely inform our business strategy. The priority level and complexity of a risk or opportunity will be evaluated and will determine the appropriate time and level of depth that climate-related scenario analysis will be leveraged. Graphic Packaging plans to build on our Vision 2025 by including a commitment to science-based targets. Such a target will be disclosed in our ESG report, which is available to all stakeholders on our public website. Graphic Packaging has made a plan to set an SBT aligned with a 2 degree scenario analysis by the end of 2022.

**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 materials and tree fibers, and virtually all is recyclable. A significant majority of the paperboard packaging is made using renewable energy. When comparing the environmental profile of paperboard packaging with other packaging formats like plastic, glass, and metal, paperboard packaging can present a smaller environmental profile including lower GHG emissions as measured by ISO Life Cycle assessment methodologies. Additionally, we understand that there are reputational risks based on consumer preferences for recyclable packaging made from renewable materials. 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 2020 we expanded the production of KeelClip™, a paperboard packaging solution for beverage cans that offers sustainability advantages and merchandising benefits as compared to other packaging options, such as plastic rings Hi-Cone. KeelClip, the company's latest innovation in paperboard packaging solutions, performs well in high-speed environments enabled by the corresponding KeelClip 1600 machinery system.
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 fibre is a critical raw material to the company's process. Preparing for Graphic Packaging's long-range planning process, our assessment of forest-related risks and opportunities have focused on macro influencers 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 to 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 supply is having a detrimental impact on business and could result in higher costs for UK and EU customers for paperboard products. The company runs woodbasket assessments to predict the impact of the government subsidies from the UK and EU. Based on these assessments the company alters its wood basket purchasing strategy.
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. In 2020 we began the installation of a new world-class Coated Recycled Board (CRB) machine in our Kalamazoo, MI site that will result in cost and quality advantages for years to come. The \$600 million investment will have a positive environmental impact by reducing global greenhouse gas emissions by 4% annually, as well as water usage and purchased energy by 1% each. The Company expects the investment will be capacity neutral by eliminating higher cost production at other facilities and will deliver an incremental \$100 million in annualized EBITDA once fully commercial in 2022. 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. Over the course of the year, we have identified areas for improvement and looked to act on these where appropriate. We understand that improvements in our processes will lead to a reduction in both energy consumption and GHG emissions. In 2020 we began the installation of a new world-class Coated Recycled Board (CRB) machine in our Kalamazoo, MI site that will result in cost and quality advantages for years to come. The \$600 million investment will have a positive environmental impact by reducing global greenhouse gas emissions by 4% annually, as well as water usage and purchased energy by 1% each. The Company expects the investment will be capacity neutral by eliminating higher cost production at other facilities and will deliver an incremental \$100 million in annualized EBITDA once fully commercial in 2022. 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.

**C3.4**

**(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. Sustainability represents one of the strongest trends in the packaging industry and the Company focuses on developing more sustainable and eco-friendly manufacturing processes and products. The overall magnitude of our impact is evaluated to be significant in relation to our overall organization's financial planning and bottom line. In our 2025 Vision we have targeted revenue of \$400 - \$700 million, and the time horizon currently considered is the period of 2020 – 2025 for our innovation efforts. Case study: In 2020 we began the installation of a new world-class Coated Recycled Board (CRB) machine in our Kalamazoo, MI site that will result in cost and quality advantages for years to come. The \$600 million investment will have a positive environmental impact by reducing global greenhouse gas emissions by 4% annually, as well as water usage and purchased energy by 1% each. The Company expects the investment will be capacity neutral by eliminating higher cost production at other facilities and will deliver an incremental \$100 million in annualized EBITDA once fully commercial in 2022. 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.

**C3.4a**

**(C3.4a) Provide any additional information on how climate-related risks and opportunities have influenced your strategy and financial planning (optional).**

**C4. Targets and performance**

**C4.1**

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

Both absolute and intensity targets

**C4.1a**

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

**Target reference number**

Abs 1

**Year target was set**

2017

**Target coverage**

Company-wide

**Scope(s) (or Scope 3 category)**

Scope 1+2 (market-based)

**Base year**

2016

**Covered emissions in base year (metric tons CO2e)**

2050506.53

**Covered emissions in base year as % of total base year emissions in selected Scope(s) (or Scope 3 category)**

100

**Target year**

2025

**Targeted reduction from base year (%)**

10

**Covered emissions in target year (metric tons CO2e) [auto-calculated]**

1845455.877

**Covered emissions in reporting year (metric tons CO2e)**

2121942.79

**% of target achieved [auto-calculated]**

-34.8383479666363

**Target status in reporting year**

Underway

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

No, but we anticipate setting one in the next 2 years

**Target ambition**

<Not Applicable>

**Please explain (including target coverage)**

Graphic Packaging reported this target to CDP in 2018 and is reporting progress against the same target in 2020. The 2020 increase in Graphic Packaging's scope 1 + 2 emissions caused the total emissions to exceed the baseline, and as such 0% of the target is currently achieved.

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**C4.1b**

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

**Target reference number**

Int 1

**Year target was set**

2017

**Target coverage**

Company-wide

**Scope(s) (or Scope 3 category)**

Scope 1+2 (market-based)

**Intensity metric**

Metric tons CO2e per unit revenue

**Base year**

2016

**Intensity figure in base year (metric tons CO2e per unit of activity)**

0.000477073

**% of total base year emissions in selected Scope(s) (or Scope 3 category) covered by this intensity figure**

100

**Target year**

2025

**Targeted reduction from base year (%)**

15

**Intensity figure in target year (metric tons CO2e per unit of activity) [auto-calculated]**

0.00040551205

**% change anticipated in absolute Scope 1+2 emissions**

10

**% change anticipated in absolute Scope 3 emissions**

0

**Intensity figure in reporting year (metric tons CO2e per unit of activity)**

0.000323472

**% of target achieved [auto-calculated]**

214.64360101424

**Target status in reporting year**

Achieved

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

No, but we anticipate setting one in the next 2 years

**Target ambition**

<Not Applicable>

**Please explain (including target coverage)**

Graphic Packaging reported this target to CDP in 2018 and is reporting progress against the same target in 2020. Despite the increase in scope 1 and 2 emissions in 2020, the significant increase in revenue in 2020 compared to 2016 has reduced Graphic's intensity by 20% or 5% greater than the target.

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**C4.2**

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

Other climate-related target(s)

**C4.2b**

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

**Target reference number**

Oth 1

**Year target was set**

2018

**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 (\$1,000 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**

4.801834194

**% of target achieved [auto-calculated]**

179.105660232273

**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 (including target coverage)**

Graphic Packaging is targeting to reduce company wide non-renewable energy use by 15% (MMBTU/ \$1,000 sales) in 2025 compared to 2016. Graphic's intensity has reduced by 26.9% compared to the base year, exceeding the target set.

**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	2	2371
To be implemented*	1	14000
Implementation commenced*	1	64236
Implemented*	6	17297
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 production processes	Other, please specify (Process emission reduction)
---	--

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

8000

**Scope(s)**

Scope 1  
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)**

300000000

**Payback period**

1-3 years

**Estimated lifetime of the initiative**

11-15 years

**Comment**

Curtain Coater Project (5 curtain coaters) - Kalamazoo, Macon and West Monroe. \$300 million represents GPI's total CapEx spending in 2020.

**Initiative category & Initiative type**

Energy efficiency in production processes	Other, please specify (Process emission reduction)
---	--

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

400

**Scope(s)**

Scope 1  
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)**

300000000

**Payback period**

1-3 years

**Estimated lifetime of the initiative**

11-15 years

**Comment**

Mill System Water Meter Upgrades. \$300 million represents GPI's total CapEx spending in 2020.

**Initiative category & Initiative type**

Energy efficiency in production processes	Process optimization
---	----------------------

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

49

**Scope(s)**

Scope 1  
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)**

300000000

**Payback period**

1-3 years

**Estimated lifetime of the initiative**

11-15 years

**Comment**

Mill Water Strainer - Kalamazoo. \$300 million represents GPI's total CapEx spending in 2020.

**Initiative category & Initiative type**

Energy efficiency in production processes	Process optimization
---	----------------------

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

150

**Scope(s)**

Scope 1  
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)**

300000000

**Payback period**

1-3 years

**Estimated lifetime of the initiative**

11-15 years

**Comment**

White Water Surge Tank - Kalamazoo. \$300 million represents GPI's total CapEx spending in 2020.

**Initiative category & Initiative type**

Energy efficiency in production processes	Process optimization
---	----------------------

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

8500

**Scope(s)**

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)**

600000000

**Payback period**

1-3 years

**Estimated lifetime of the initiative**

11-15 years

**Comment**

New Paper Recycled Paperboard Machine

**Initiative category & Initiative type**

Energy efficiency in production processes	Machine/equipment replacement
---	-------------------------------

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

197.8

**Scope(s)**

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)**

600000000

**Payback period**

1-3 years

**Estimated lifetime of the initiative**

Please select

**Comment**

Substitution of 2 small machines by a large, estimated reduction 10% energy per Tonne converted (Igalada, since 2019). An upgrade to a new printer was also made in Masnieres in 2020 and there is also a plan to install a new printer in Bardon in 2021.

**C4.3c**

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

Method	Comment
Compliance with regulatory requirements/standards	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.
Other	Graphic Packaging employees Lean Six Sigma as part of our continuous improvement process which includes defined environmental impacts.

**C4.5**

**(C4.5) Do you classify any of your existing goods and/or services as low-carbon products or do they enable a third party to avoid GHG emissions?**

Yes

**C4.5a**

**(C4.5a) Provide details of your products and/or services that you classify as low-carbon products or that enable a third party to avoid GHG emissions.**

**Level of aggregation**

Group of products

**Description of product/Group of products**

Graphic Packaging manufactures and sells paperboard packaging which is made from a renewable material, tree fiber. A significant portion of the paperboard packaging is also made using renewable energy. When comparing the environmental life cycle of paperboard packaging with other packaging materials such as plastic, glass, or metal, it typically represents a lower environmental footprint. Graphic Packaging partners with a third-party to better understand the emissions reductions through a life-cycle analysis. An update to this LCA was conducted in fall of 2020.

**Are these low-carbon product(s) or do they enable avoided emissions?**

Avoided emissions

**Taxonomy, project or methodology used to classify product(s) as low-carbon or to calculate avoided emissions**

Other, please specify (ISO 14044 (ISO, 2006))

**% revenue from low carbon product(s) in the reporting year**

100

**% of total portfolio value**

<Not Applicable>

**Asset classes/ product types**

<Not Applicable>

**Comment**

**C5. Emissions methodology**

**C5.1**

**(C5.1) Provide your base year and base year emissions (Scopes 1 and 2).**

**Scope 1**

**Base year start**

January 1 2016

**Base year end**

December 31 2016

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

1257469.257

**Comment**

**Scope 2 (location-based)**

**Base year start**

January 1 2016

**Base year end**

December 31 2016

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

789906.468

**Comment**

**Scope 2 (market-based)**

**Base year start**

January 1 2016

**Base year end**

December 31 2016

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

793037.275

**Comment**

**C5.2**

---

**(C5.2) Select the name of the standard, protocol, or methodology you have used to collect activity data and calculate emissions.**

IPCC Guidelines for National Greenhouse Gas Inventories, 2006

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

**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)**

1441474.641

**Start date**

<Not Applicable>

**End date**

<Not Applicable>

**Comment**

**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

652276.545

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

680468.15

##### Start date

<Not Applicable>

##### End date

<Not Applicable>

##### Comment

## C6.4

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

No

## 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

##### Metric tonnes CO2e

2141192

##### Emissions calculation methodology

The estimated emissions were calculated using the GHG Protocol Quantis Scope 3 Evaluator Tool. Financial expenditure data was collected and allocated according to purchase type (i.e. standard goods and services). Based on this allocation, Quantis applied emission factors specific to the pulp, paper, printing and publishing sector per dollar spent to calculate the respective emissions.

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

0

##### Please explain

#### Capital goods

##### Evaluation status

Relevant, calculated

##### Metric tonnes CO2e

255048

##### Emissions calculation methodology

The estimated emissions were calculated using the GHG Protocol Quantis Scope 3 Evaluator Tool. Financial expenditure data was collected and allocated according to purchase type (capital goods). Based on this allocation, Quantis applied emission factors specific to the pulp, paper, printing and publishing sector per dollar spent to calculate the respective emissions.

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

0

##### Please explain

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

##### Evaluation status

Relevant, calculated

##### Metric tonnes CO2e

33369

##### Emissions calculation methodology

The estimated transmission and distribution loss emissions were calculated by taking the product of the final market-based electric power emissions for the Graphic Packaging portfolio and the US EPA State Electricity Profile loss factors and World Bank T&D loss factors.

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

0

##### Please explain

## Upstream transportation and distribution

### Evaluation status

Relevant, calculated

### Metric tonnes CO2e

79651

### Emissions calculation methodology

The estimated emissions were calculated using the GHG Protocol Quantis Scope 3 Evaluator Tool. Financial expenditure data was collected and allocated according to third party transportation (air, water, rail, road freight) and distribution (warehousing and upstream). Based on this allocation, Quantis applied emission factors specific to the pulp, paper, printing and publishing sector per dollar spent to calculate the respective emissions.

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

0

### Please explain

## Waste generated in operations

### Evaluation status

Relevant, calculated

### Metric tonnes CO2e

32750

### Emissions calculation methodology

The estimated emissions were calculated using the GHG Protocol Quantis Scope 3 Evaluator Tool. Financial expenditure data was collected for Graphic Packaging's waste management services. Based on this allocation, Quantis applied emission factors specific to the pulp, paper, printing and publishing sector per dollar spent to calculate the respective emissions.

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

0

### Please explain

## Business travel

### Evaluation status

Relevant, calculated

### Metric tonnes CO2e

5904

### Emissions calculation methodology

The estimated emissions were calculated using the GHG Protocol Quantis Scope 3 Evaluator Tool. Financial expenditure data was collected and allocated according to travel activity (auto rentals, taxi, hotel stays, air travel). Based on this allocation, Quantis applied emission factors specific to the pulp, paper, printing and publishing sector per dollar spent to calculate the respective emissions.

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

0

### Please explain

## Employee commuting

### Evaluation status

Relevant, calculated

### Metric tonnes CO2e

34.57

### Emissions calculation methodology

The estimated emissions were calculated using the U.S. EPA Climate Leaders Emission Factor Hub, Table 10 for Passenger Cars and employee commuting mileage provided by Graphic Packaging.

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

0

### Please explain

## Upstream leased assets

### Evaluation status

Not relevant, explanation provided

### Metric tonnes CO2e

<Not Applicable>

### Emissions calculation methodology

<Not Applicable>

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

<Not Applicable>

### Please explain

The Scope 3 upstream leased assets category does not meet any of the criteria (size, influence, risk, stakeholders, outsourcing, etc.) deemed as relevant under the WRI / WBCSD "Corporate Value Chain (Scope 3) Accounting & Reporting Standard" criteria of "sector guidance" as defined in Table 6.1 based on Graphic Packaging's review of operations.

## Downstream transportation and distribution

### Evaluation status

Relevant, calculated

### Metric tonnes CO2e

222383

### Emissions calculation methodology

The estimated emissions were calculated using the GHG Protocol Quantis Scope 3 Evaluator Tool. Financial expenditure data was collected and allocated according distribution (downstream). Based on this allocation, Quantis applied emission factors specific to the pulp, paper, printing and publishing sector per dollar spent to calculate the respective emissions.

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

0

### Please explain

## Processing of sold products

### Evaluation status

Not relevant, explanation provided

### Metric tonnes CO2e

<Not Applicable>

### Emissions calculation methodology

<Not Applicable>

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

<Not Applicable>

### Please explain

The Processing of Sold Products Scope 3 category does not meet any of the criteria (size, influence, risk, stakeholders, outsourcing, etc.) deemed as relevant under the WRI / WBCSD "Corporate Value Chain (Scope 3) Accounting & Reporting Standard" criteria of "sector guidance" as defined in Table 6.1 based on Graphic Packaging's review of operations.

## Use of sold products

### Evaluation status

Not relevant, explanation provided

### Metric tonnes CO2e

<Not Applicable>

### Emissions calculation methodology

<Not Applicable>

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

<Not Applicable>

### Please explain

The Use of Sold Products Scope 3 category does not meet any of the criteria (size, influence, risk, stakeholders, outsourcing, etc.) deemed as relevant under the WRI / WBCSD "Corporate Value Chain (Scope 3) Accounting & Reporting Standard" criteria of "sector guidance" as defined in Table 6.1 based on Graphic Packaging's review of operations.

## End of life treatment of sold products

### Evaluation status

Relevant, calculated

### Metric tonnes CO2e

40343

### Emissions calculation methodology

The estimated emissions were calculated using the GHG Protocol Quantis Scope 3 Evaluator Tool. The respective material mass of sold products was collected and allocated according product material grouping (i.e. paper, metals, plastics, organics, and mixed). Based on this allocation, Quantis applied emission factors specific to the pulp, paper, printing and publishing sector per dollar spent to calculate the respective emissions.

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

### Please explain

## Downstream leased assets

### Evaluation status

Relevant, calculated

### Metric tonnes CO2e

768140

### Emissions calculation methodology

The estimated emissions were calculated using the GHG Protocol Quantis Scope 3 Evaluator Tool. Leased income by facility type was collected. Based on this allocation, Quantis applied emission factors specific to the pulp, paper, printing and publishing sector per dollar spent to calculate the respective emissions.

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

### Please explain

**Franchises**

**Evaluation status**

Not relevant, explanation provided

**Metric tonnes CO2e**

<Not Applicable>

**Emissions calculation methodology**

<Not Applicable>

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

<Not Applicable>

**Please explain**

Graphic Packaging does not operate any franchises and as such this Scope 3 category does not meet any of the criteria (size, influence, risk, stakeholders, outsourcing, etc.) deemed as relevant under the WRI / WBCSD "Corporate Value Chain (Scope 3) Accounting & Reporting Standard" criteria of "sector guidance" as defined in Table 6.1 based on Graphic Packaging's review of operations.

**Investments**

**Evaluation status**

Not relevant, explanation provided

**Metric tonnes CO2e**

<Not Applicable>

**Emissions calculation methodology**

<Not Applicable>

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

<Not Applicable>

**Please explain**

The Investments Scope 3 category does not meet any of the criteria (size, influence, risk, stakeholders, outsourcing, etc.) deemed as relevant under the WRI / WBCSD "Corporate Value Chain (Scope 3) Accounting & Reporting Standard" criteria of "sector guidance" as defined in Table 6.1 based on Graphic Packaging's review of operations.

**Other (upstream)**

**Evaluation status**

Not evaluated

**Metric tonnes CO2e**

<Not Applicable>

**Emissions calculation methodology**

<Not Applicable>

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

<Not Applicable>

**Please explain**

**Other (downstream)**

**Evaluation status**

Not evaluated

**Metric tonnes CO2e**

<Not Applicable>

**Emissions calculation methodology**

<Not Applicable>

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

<Not Applicable>

**Please explain**

**C-AC6.6/C-FB6.6/C-PF6.6**

---

**(C-AC6.6/C-FB6.6/C-PF6.6) Can you break down your Scope 3 emissions by relevant business activity area?**

No

**C-AC6.6b/C-FB6.6b/C-PF6.6b**

---

**(C-AC6.6b/C-FB6.6b/C-PF6.6b) Why can you not report your Scope 3 emissions by business activity area?**

**Row 1**

**Primary reason**

Lack of internal resources

**Please explain**

Graphic Packaging's supply chain resources are focused on executing contracts and securing raw material. We have not allocated resources to generate this level of data.

## 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)**

5543563.879

**Methodology**

Default emissions factors

**Please explain**

Biogenic carbon dioxide emissions were calculated for bark, black liquor, 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. Biogenic carbon dioxide emissions were calculated for sludge using a custom factor calculated by assuming 12.4% carbon content per wet ton of sludge using a GPI custom HHV.

## 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?**

No

**Please explain**

Graphic Packaging's resources are focused on executing contracts and securing raw material. We have not allocated resources to generate this level of data.

## 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**

0.000323472

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

2121943

**Metric denominator**

unit total revenue

**Metric denominator: Unit total**

6559900000

**Scope 2 figure used**

Market-based

**% change from previous year**

7.01

**Direction of change**

Decreased

**Reason for change**

The Company's total Scope 1 and Scope 2 emissions have decreased year over year by approximately 0.98%, and revenues have increased at a rate of 6.49% therefore reducing the intensity of emissions per unit of revenue by 7.01%

## C7. Emissions breakdowns

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### C7.1

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**(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	1413043.024	IPCC Fifth Assessment Report (AR5 – 100 year)
CH4	6474.2	IPCC Fifth Assessment Report (AR5 – 100 year)
N2O	21957.417	IPCC Fifth Assessment Report (AR5 – 100 year)

**C7.2**

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

Country/Region	Scope 1 emissions (metric tons CO2e)
Canada	34163.003
United States of America	1402424.018
United Kingdom of Great Britain and Northern Ireland	3628.62
Netherlands	1126.282
Spain	27.849
France	78.829
Australia	0
Mexico	0
Germany	26.04
Ireland	0

**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)
Americas Converting	26664.936
Benson Group	2254.556
Beverage Packaging	2054.231
Graphic Packaging, LLC	14256.443
Headquarters / Sales	158.426
Machinery	248.408
Mills Division	1395837.641

**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/C-PF7.4b) 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 category**

<Not Applicable>

**Emissions (metric tons CO2e)**

1395837.641

**Methodology**

Default emissions factor

**Please explain**

Over half of Graphic Packaging's Scope 1 emissions result from activities from the 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/region.**

Country/Region	Scope 2, location-based (metric tons CO2e)	Scope 2, market-based (metric tons CO2e)	Purchased and consumed electricity, heat, steam or cooling (MWh)	Purchased and consumed low-carbon electricity, heat, steam or cooling accounted for in Scope 2 market-based approach (MWh)
Australia	2243.991	2243.991	3152.93	0
Brazil	139.884	139.884	1401.96	0
Canada	9622.751	9622.751	72971.94	0
France	324.613	254.493	5892.46	0
Germany	1507.377	2289.293	3756.82	0
Mexico	7155.72	7155.72	15684.58	0
Netherlands	6476.691	8609.043	15505.92	0
Spain	3500.455	4623.934	13493.06	0
United Kingdom of Great Britain and Northern Ireland	8921.295	10136.123	38897.81	0
United States of America	612268.233	635251.34	1297438.74	0
Ireland	115.535	141.578	348.71	0

**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)
Americas Converting	153154.975	142118.75
Benson Group	3711.846	4742.035
Beverage Packaging	14757.913	18128.263
Graphic Packaging, LLC	113906.547	122315.664
Headquarters / Sales	1359.873	1328.646
Machinery	673.636	673.636
Mills Division	364711.755	391161.156

**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?**

Decreased

**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	Emissions value (percentage)	Please explain calculation
Change in renewable energy consumption	0	No change	0	
Other emissions reduction activities	17297	Decreased	0.81	Efficiency projects undertaken at our mills accounted for 17,297 mtons CO2e reduction compared to the prior year. This reduction compared to the prior year scope 1 and 2 emissions of 2,142,901.58 represents a 0.81% decrease (17297/2142901.58) in emissions.
Divestment	0	No change		
Acquisitions	0	No change		
Mergers	0	No change		
Change in output	0	No change		
Change in methodology	0	No change		
Change in boundary	0	No change		
Change in physical operating conditions	0	No change		
Unidentified	3662	Decreased	0.17	Graphic incurred 17,297 mtons CO2e in reductions attributed to realized energy efficiency reductions. Therefore, the remaining decrease is 3,662 mtons (20,959 - 17,297 mtons CO2e). Compared to the prior year scope 1 and 2 emissions of 2,142,901.58 mtons, this represents a 0.17 decrease (3662/2142901.58) in emissions. Specifically, this decrease is attributed to decreases observed in the scope 2 electric power emission factors year over year.
Other	0	No change	0	

**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 0% but less than or equal to 5%

**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	No
Consumption of purchased or acquired steam	No
Consumption of purchased or acquired cooling	No
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)	17263202.44	7763445.73	25026648.17
Consumption of purchased or acquired electricity	<Not Applicable>	0	1468544.93	1468544.93
Consumption of purchased or acquired heat	<Not Applicable>	<Not Applicable>	<Not Applicable>	<Not Applicable>
Consumption of purchased or acquired steam	<Not Applicable>	<Not Applicable>	<Not Applicable>	<Not Applicable>
Consumption of purchased or acquired cooling	<Not Applicable>	<Not Applicable>	<Not Applicable>	<Not Applicable>
Consumption of self-generated non-fuel renewable energy	<Not Applicable>	0	<Not Applicable>	0
Total energy consumption	<Not Applicable>	17263202.44	9231990.66	26495193.1

**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.**

**Fuels (excluding feedstocks)**

Wood

**Heating value**

HHV (higher heating value)

**Total fuel MWh consumed by the organization**

5100778.25

**MWh fuel consumed for self-generation of electricity**

<Not Applicable>

**MWh fuel consumed for self-generation of heat**

0

**MWh fuel consumed for self-generation of steam**

<Not Applicable>

**MWh fuel consumed for self-generation of cooling**

<Not Applicable>

**MWh fuel consumed for self-cogeneration or self-trigeneration**

5100778.25

**Emission factor**

1.16

**Unit**

kg CO2e per million Btu

**Emissions factor source**

US EPA MRR Final Rule (40 CFR 98) - Industrial Sector 2013

**Comment**

**Fuels (excluding feedstocks)**

Black Liquor

**Heating value**

HHV (higher heating value)

**Total fuel MWh consumed by the organization**

12074939.02

**MWh fuel consumed for self-generation of electricity**

<Not Applicable>

**MWh fuel consumed for self-generation of heat**

0

**MWh fuel consumed for self-generation of steam**

<Not Applicable>

**MWh fuel consumed for self-generation of cooling**

<Not Applicable>

**MWh fuel consumed for self-cogeneration or self-trigeneration**

12074939.02

**Emission factor**

0.16

**Unit**

kg CO2e per million Btu

**Emissions factor source**

US EPA MRR Final Rule (40 CFR 98) - Industrial Sector 2013

**Comment**

---

**Fuels (excluding feedstocks)**

Coal

**Heating value**

HHV (higher heating value)

**Total fuel MWh consumed by the organization**

10739.18

**MWh fuel consumed for self-generation of electricity**

<Not Applicable>

**MWh fuel consumed for self-generation of heat**

0

**MWh fuel consumed for self-generation of steam**

<Not Applicable>

**MWh fuel consumed for self-generation of cooling**

<Not Applicable>

**MWh fuel consumed for self-cogeneration or self-trigeneration**

10739.18

**Emission factor**

95.4

**Unit**

kg CO2e per million Btu

**Emissions factor source**

US EPA MRR Final Rule (40 CFR 98) - Industrial Sector 2013

**Comment**

---

**Fuels (excluding feedstocks)**

Diesel

**Heating value**

HHV (higher heating value)

**Total fuel MWh consumed by the organization**

59554.61

**MWh fuel consumed for self-generation of electricity**

<Not Applicable>

**MWh fuel consumed for self-generation of heat**

0

**MWh fuel consumed for self-generation of steam**

<Not Applicable>

**MWh fuel consumed for self-generation of cooling**

<Not Applicable>

**MWh fuel consumed for self-cogeneration or self-trigeneration**

59554.61

**Emission factor**

74.2

**Unit**

kg CO2e per million Btu

**Emissions factor source**

US EPA MRR Final Rule (40 CFR 98) - Industrial Sector 2013

**Comment**

---

**Fuels (excluding feedstocks)**

Motor Gasoline

**Heating value**

HHV (higher heating value)

**Total fuel MWh consumed by the organization**

4772.81

**MWh fuel consumed for self-generation of electricity**

<Not Applicable>

**MWh fuel consumed for self-generation of heat**

0

**MWh fuel consumed for self-generation of steam**

<Not Applicable>

**MWh fuel consumed for self-generation of cooling**

<Not Applicable>

**MWh fuel consumed for self-cogeneration or self-trigeneration**

4772.81

**Emission factor**

70.46

**Unit**

kg CO2e per million Btu

**Emissions factor source**

US EPA MRR Final Rule (40 CFR 98) - Industrial Sector 2013

**Comment**

---

**Fuels (excluding feedstocks)**

Kerosene

**Heating value**

HHV (higher heating value)

**Total fuel MWh consumed by the organization**

277.78

**MWh fuel consumed for self-generation of electricity**

<Not Applicable>

**MWh fuel consumed for self-generation of heat**

0

**MWh fuel consumed for self-generation of steam**

<Not Applicable>

**MWh fuel consumed for self-generation of cooling**

<Not Applicable>

**MWh fuel consumed for self-cogeneration or self-trigeneration**

277.78

**Emission factor**

75.44

**Unit**

kg CO2e per million Btu

**Emissions factor source**

US EPA MRR Final Rule (40 CFR 98) - Industrial Sector 2013

**Comment**

---

**Fuels (excluding feedstocks)**

Natural Gas

**Heating value**

HHV (higher heating value)

**Total fuel MWh consumed by the organization**

7630715.28

**MWh fuel consumed for self-generation of electricity**

<Not Applicable>

**MWh fuel consumed for self-generation of heat**

0

**MWh fuel consumed for self-generation of steam**

<Not Applicable>

**MWh fuel consumed for self-generation of cooling**

<Not Applicable>

**MWh fuel consumed for self-cogeneration or self-trigeneration**

7630715.28

**Emission factor**

---

53.12

**Unit**

kg CO2e per million Btu

**Emissions factor source**

US EPA MRR Final Rule (40 CFR 98) - Industrial Sector 2013

**Comment**

---

**Fuels (excluding feedstocks)**

Fuel Oil Number 2

**Heating value**

Please select

**Total fuel MWh consumed by the organization**

5231.57

**MWh fuel consumed for self-generation of electricity**

<Not Applicable>

**MWh fuel consumed for self-generation of heat**

0

**MWh fuel consumed for self-generation of steam**

<Not Applicable>

**MWh fuel consumed for self-generation of cooling**

<Not Applicable>

**MWh fuel consumed for self-cogeneration or self-trigeneration**

5231.57

**Emission factor**

74.2

**Unit**

kg CO2e per million Btu

**Emissions factor source**

US EPA MRR Final Rule (40 CFR 98) - Industrial Sector 2013

**Comment**

---

**Fuels (excluding feedstocks)**

Propane Liquid

**Heating value**

HHV (higher heating value)

**Total fuel MWh consumed by the organization**

47188

**MWh fuel consumed for self-generation of electricity**

<Not Applicable>

**MWh fuel consumed for self-generation of heat**

0

**MWh fuel consumed for self-generation of steam**

<Not Applicable>

**MWh fuel consumed for self-generation of cooling**

<Not Applicable>

**MWh fuel consumed for self-cogeneration or self-trigeneration**

47188

**Emission factor**

63.11

**Unit**

kg CO2e per million Btu

**Emissions factor source**

US EPA MRR Final Rule (40 CFR 98) - Industrial Sector 2013

**Comment**

---

**Fuels (excluding feedstocks)**

Waste Oils

**Heating value**

HHV (higher heating value)

**Total fuel MWh consumed by the organization**

4966.5

**MWh fuel consumed for self-generation of electricity**

---

<Not Applicable>

**MWh fuel consumed for self-generation of heat**  
0

**MWh fuel consumed for self-generation of steam**  
<Not Applicable>

**MWh fuel consumed for self-generation of cooling**  
<Not Applicable>

**MWh fuel consumed for self-cogeneration or self-trigeneration**  
4966.5

**Emission factor**  
21.1

**Unit**  
kg CO2e per million Btu

**Emissions factor source**  
IPCC - Intergovernmental Panel on Climate Change 2006 IPCC Guidelines

**Comment**

---

**Fuels (excluding feedstocks)**  
Other, please specify (Sludge)

**Heating value**  
HHV (higher heating value)

**Total fuel MWh consumed by the organization**  
87485.17

**MWh fuel consumed for self-generation of electricity**  
<Not Applicable>

**MWh fuel consumed for self-generation of heat**  
0

**MWh fuel consumed for self-generation of steam**  
<Not Applicable>

**MWh fuel consumed for self-generation of cooling**  
<Not Applicable>

**MWh fuel consumed for self-cogeneration or self-trigeneration**  
87485.17

**Emission factor**  
72.57

**Unit**  
kg CO2e per million Btu

**Emissions factor source**  
Custom factor calculated by assuming 12.4% carbon content per wet ton of sludge using the custom HHV provided

**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	1941896.97	1935723.59	0	0
Heat	0	0	0	0
Steam	0	0	0	0
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 emission factor in the market-based Scope 2 figure reported in C6.3.**

**Sourcing method**

None (no purchases of low-carbon electricity, heat, steam or cooling)

**Low-carbon technology type**

<Not Applicable>

**Country/area of consumption of low-carbon electricity, heat, steam or cooling**

<Not Applicable>

**MWh consumed accounted for at a zero emission factor**

<Not Applicable>

**Comment**

---

**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**

2020-gpi-assurance-statement.pdf

**Page/ section reference**

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**

2020-gpi-assurance-statement.pdf

**Page/ section reference**

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**

2020-gpi-assurance-statement.pdf

**Page/ section reference**

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

**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**

2020-gpi-assurance-statement.pdf

**Page/section reference**

2

**Relevant standard**

ISO14064-3

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

100

---

**Scope 3 category**

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

**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**

2020-gpi-assurance-statement.pdf

**Page/section reference**

2

**Relevant standard**

ISO14064-3

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

100

---

**Scope 3 category**

Scope 3: Upstream transportation and distribution

**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**

2020-gpi-assurance-statement.pdf

**Page/section reference**

2

**Relevant standard**

ISO14064-3

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

100

---

**Scope 3 category**

Scope 3: Waste generated in operations

**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**

2020-gpi-assurance-statement.pdf

**Page/section reference**

2

**Relevant standard**

ISO14064-3

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

100

---

**Scope 3 category**

Scope 3: Business travel

**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**

2020-gpi-assurance-statement.pdf

**Page/section reference**

2

**Relevant standard**

ISO14064-3

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

100

---

**Scope 3 category**

Scope 3: Employee commuting

---

**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**  
2020-gpi-assurance-statement.pdf

**Page/section reference**  
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?**  
No, we do not verify any other climate-related information reported in our CDP disclosure

## C11. Carbon pricing

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### C11.1

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**(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

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**(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

**% of Scope 1 emissions covered by the ETS**  
2.23

**% of Scope 2 emissions covered by the ETS**  
1.19

**Period start date**  
January 1 2020

**Period end date**  
December 1 2020

**Allowances allocated**  
23440

**Allowances purchased**  
0

**Verified Scope 1 emissions in metric tons CO2e**  
32443.01

**Verified Scope 2 emissions in metric tons CO2e**  
7730.59

**Details of ownership**  
Facilities we own and operate

**Comment**

## C11.1d

---

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

Our process of complying with the Québec ETS is as follows: We monitor energy use and measure emitted GHGs to determine the amount of allowances that GPI needs to purchase (if any) above the cap. We then purchase any needed 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 recently implemented minor changes to speed up the paper machine (and dryer pressure) and to improve mill runnability. As a result, we have achieved emissions intensity (tons GHG emissions per ton of production) reductions between 2019 and 2021.

## C11.2

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### (C11.2) Has your organization originated or purchased any project-based carbon credits within the reporting period?

No

## C11.3

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

No, and we do not currently anticipate doing so in the next two years

## C12. Engagement

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### C12.1

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

Yes, our suppliers  
Yes, our customers

### 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

7

##### % total procurement spend (direct and indirect)

65

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

67

##### Rationale for the coverage of your engagement

We engage with certain suppliers including our largest suppliers representing 7% of total supplier population and a few technology specific innovators. Programs include upgrading performance of materials and reducing the amount of material required for producing our products. Included in this group are some of our wood suppliers that manage forests in a sustainable manner. Engagements in innovation include designing coatings and tapes that are made from renewable materials and recyclable material. We are addressing End-of-Life challenges that petroleum-based resins present. Coatings innovation work focuses on replacing PE on Foodservice packaging. The coatings will meet recycling needs and thus improve the recovery of foodservice packaging. The higher recovery rate will avoid Greenhouse Gases that would be generated when the foodservice package is sent to the landfill. Innovation efforts on 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. GPI chooses to engage with Tier 1 suppliers (50 of 7,500 total suppliers) as they represent the majority of our spending and technology specific suppliers.

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

The impact of the engagement will allow Graphic Packaging to provide environmentally responsible packaging solutions that are made from renewable materials and are recyclable and / or compostable. Graphic Packaging measures the success of our engagement with our suppliers through new product sales metrics against our long-range operating plan, which includes the goal of eliminating LPDE and plastics as a functional barrier. As part of our 2025 Vision, Graphic Packaging has committed to reducing the use of low-density polyethylene (LDPE) by 40%. These innovation efforts will support our 2025 Vision targeted revenue of \$400 - \$700 million from innovation efforts over the period of 2020 – 2025.

##### 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 are considered a contaminant in the paper recycling stream. These solutions are also not compostable. Graphic Packaging has developed advanced biobased resins that provide barrier and are recyclable and / or compostable.

---

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

Collaboration &amp; innovation

**Details of engagement**

Run a campaign to encourage innovation to reduce climate change impacts

**% of customers by number**

10

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

0

**Portfolio coverage (total or outstanding)**

&lt;Not Applicable&gt;

**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 engage (as appropriate) with customers, who strategically partner with us to convert to fibre-based, recyclable products, lower GHG metrics and/or are interested in collaborating on renewable energy purchases. These customers comprise of up to approximately 10% of our total number of customers and represent some of our largest customers by sales revenue. Customer engagements can vary by initiative and scope. The project initiation can be from an innovation personation to the customer resulting in an innovation project or as a result of the customer requesting an innovative solution as part of their strategy. The project scope can range from innovation development by GPI from customer design guidance or through a collaborative effort with a project team comprised of Graphic Packaging and customer employees. Through engagement with these customers we commercialize new technologies that will have a positive impact on the environment and reduce our customers packaging environmental profile. Rationale for engaging with these customers: We are in active discussions with 10 of our largest customers, as measured by sales revenue, on GHG and electric use reduction projects, including the exploration PPAs, as those customers reflect a significant portion of our Scope 3 sources, the reduction of which will be increasingly important as we work to set an SBT by 2022.

**Impact of engagement, including measures of success**

The impact of the engagement will allow Graphic Packaging's customers to provide environmentally responsible packaging solutions that are recyclable and / or compostable. In our Vision 2025 we have announced our target of sales of \$400 - \$700 million over the period of 2020 – 2025, associated with conversion to more sustainable packaging. As an example, in 2020 we accelerated the growth of our KeelClip™, a paperboard packaging solution for beverage cans that offers sustainability advantages and merchandising benefits as compared to other packaging options, such as plastic rings Hi-Cone. KeelClip, the Company's latest innovation in paperboard packaging solutions, performs well in highspeed environments enabled by the corresponding KeelClip machinery system. Success will be measured by achieving commercial implementations of KeelClip and meeting our revenue targets over the period. On average we are working with our customers to reduce the wood fibre in their packaging by 1%. This reduction target was developed as a result of customer engagement efforts. We are engaged with many customers to measure our impact to their Scope 3 GHG emissions. Discussions include an overview of Graphic Packaging's goals and programs to reduce achieve these GHG reduction goals. Our customers include our current GHG emissions and goals with their supplier base to understand the trends of their Scope 3 emissions.

## 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 2020 we facilitated virtual training sessions in West Monroe, LA and Macon, GA. 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)

Reduced demand for fertilizers (adaptation)

**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)** Do you engage in activities that could either directly or indirectly influence public policy on climate-related issues through any of the following?

Direct engagement with policy makers

Trade associations

Funding research organizations

**C12.3a**

**(C12.3a)** On what issues have you been engaging directly with policy makers?

Focus of legislation	Corporate position	Details of engagement	Proposed legislative solution
Cap and trade	Oppose	Advocacy to federal and state legislators and regulators. Graphic Packaging provides the impact of the legislation to our operations and provides insight on the progress that has been made by the Company to reduce our GHG levels. Our outreach provides the progress that has been made in reducing GHG emissions. Graphic Packaging works with trade associations (American Forest & Paper Association and Paper Recycling Coalition) and scientific labs (National Council for Air and Stream Improvement) in the advocacy efforts. In California Graphic Packaging is a member of the California Manufacturers and Technical Association.	Graphic Packaging supports regulatory reform that requires rulemaking to include science-based measurements, a cost benefit analysis, and public review and comment.
Carbon tax	Oppose	Advocacy to federal and state legislators and regulators. Graphic Packaging provides the impact of the legislation to our operations and provides insight on the progress that has been made to reduce our GHG levels. Graphic Packaging utilizes biomass, a renewable energy source, for more than 65% of our global energy. Legislation and regulatory advocacy programs regarding the carbon neutrality of biomass is critical to the Company. Graphic Packaging has participated with industry associations, scientific labs and NGO's to develop an accounting for the biogenic carbon generated from biomass energy. This data is a cornerstone of our messaging confirming that biogenic carbon should continue to be considered carbon neutral. Graphic Packaging works with trade associations (American Forest & Paper Association and Paper Recycling Coalition) and scientific labs (National Council for Air and Stream Improvement) on these advocacy efforts	Graphic Packaging supports regulatory reform that requires rulemaking to include science-based measurements, a cost benefit analysis, and public review and comment. Graphic Packaging also supports legislation and regulatory language that clearly defines biogenic carbon as a carbon neutral renewable energy source.
Energy efficiency	Support	Advocacy to federal and state legislators and regulators. Graphic Packaging was recognized with the Energy Leader Award for reducing energy. The Company was supported by an EPA consultant on energy management as part of the program. Graphic Packaging works with trade associations (American Forest & Paper Association and Paper Recycling Coalition) and scientific labs (National Council for Air and Stream Improvement) in these advocacy efforts. We have also worked with the Department of Energy for advice on "best practices" regarding energy efficiency programs.	Energy efficiency in the areas of research and development and innovation is where legislation may support breakthrough advancements. These could be in the form of research grants or innovation centers. Legislation structured to support advancements in new battery technology would make renewable energy like wind and solar viable as a full-service energy source. This is also an area that is related to energy efficiency.

**C12.3b**

**(C12.3b) Are you on the board of any trade associations or do you provide funding beyond membership?**

Yes

**C12.3c**

**(C12.3c) Enter the details of those trade associations that are likely to take a position on climate change legislation.**

**Trade association**

American Forest and Paper Association

**Is your position on climate change consistent with theirs?**

Consistent

**Please explain the trade association's position**

AF&PA members have long been good stewards of our planet's resources. The industry produces recyclable products made from a renewable resource and believe that sustainable practices today will yield positive results for a better tomorrow. Better Practices, Better Planet 2020 - 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. These goals are being updated in 2021.

**How have you influenced, or are you attempting to influence their position?**

Graphic Packaging participated in drafting and writing the position. The company provides environmental data to support the industry's measurement and ultimately the 2020 goals. Graphic Packaging is also engaged in setting the next sustainability goals for the industry.

**Trade association**

Paper Recycling Coalition

**Is your position on climate change consistent with theirs?**

Consistent

**Please explain the trade association's position**

The Paper Recycling Coalition, Inc. represents the interests of the 100% recycled paperboard and containerboard industries. As a net negative emitter of carbon dioxide CO<sub>2</sub>, this industry is a leader in sustainability. For every ton of 100% recycled paperboard produced, 3.17 tons of CO<sub>2</sub> are avoided, when measured using the EPA WARM Model. The Coalition consists of nine companies with 62,000 employees in facilities located in 45 states. The Mission of the Paper Recycling Coalition is to protect the U.S. recovered fiber supply from market distorting government subsidies and costly government regulations. The use of recovered paper to make new products will contribute to reducing atmospheric carbon. Paper and paperboard recycling are one of our country's greatest environmental success stories. The amount of used paper recovered for recycling has nearly doubled since 1990. Over 65.7% of paper and paperboard materials were recovered in 2020.

**How have you influenced, or are you attempting to influence their position?**

Graphic Packaging helped draft the position, participated in developing the carbon accounting, and is aligned with the position. We continue to participate in advocacy and other activities to support the industry.

**C12.3d**

**(C12.3d) Do you publicly disclose a list of all research organizations that you fund?**

Yes

**C12.3f**

**(C12.3f) What processes do you have in place to ensure that all of your direct and indirect activities that influence policy are consistent with your overall climate change strategy?**

Graphic Packaging's VP of Government Affairs and Sustainability provides strategic direction and ensures that the direct and indirect activities regarding climate change policies are consistent with the 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.

**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**

GPI-esg-report-2020.pdf

**Page/Section reference**

All pages

**Content elements**

Governance

Strategy

Risks & opportunities

Emissions figures

Emission targets

Other metrics

**Comment**

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**Publication**

In mainstream reports

**Status**

Complete

**Attach the document**

graphicpackaging-2020-annualreport.pdf

**Page/Section reference**

Risk Factors. Page 15-17

**Content elements**

Risks & opportunities

**Comment**

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**Publication**

Other, please specify (In publicly available supplier code of conduct)

**Status**

Complete

**Attach the document**

GPI-global-supplier-code-of-conduct-english.pdf

**Page/Section reference**

Pg. 2

**Content elements**

Other metrics

**Comment**

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### C13. Other land management impacts

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

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(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?

Yes

#### 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

**Overall effect**

Positive

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

Biodiversity

Soil

Water

**Description of impacts**

We provide continuing education to landowners, loggers, and land managers at our West Monroe, LA and Macon, GA sites. These training events are facilitated by professors and wood procurement managers, who instruct continuing professional educational classes on sustainable forestry management practices.

**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.

C15. 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.

C15.1

(C15.1) 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)

SC. Supply chain module

SC0.0

(SC0.0) If you would like to do so, please provide a separate introduction to this module.

Graphic Packaging Holding Company (together with its subsidiaries, "Graphic Packaging" or the "Company") is committed to providing consumer packaging that makes a world of difference. The Company is a leading provider of paper-based packaging solutions for a wide variety of products to food, beverage, food service and other consumer products companies. The Company operates on a global basis, is one of the largest producers of folding cartons in the United States ("U.S.") and holds leading market positions in coated unbleached kraft paperboard ("CUK"), coated-recycled paperboard ("CRB") and solid bleached sulfate paperboard ("SBS"). The Company's customers include many of the world's most widely recognized companies and brands with prominent market positions in beverage, food, food service and other consumer products. The Company strives to provide its customers with packaging solutions designed to deliver marketing and performance benefits at a competitive cost by capitalizing on its low-cost paperboard mills and carton manufacturing plants, its proprietary carton, container and packaging designs, and its commitment to quality and service.

SC0.1

(SC0.1) What is your company's annual revenue for the stated reporting period?

	Annual Revenue
Row 1	6559900000

SC0.2

(SC0.2) Do you have an ISIN for your company that you would be willing to share with CDP?

Yes

## SC0.2a

(SC0.2a) Please use the table below to share your ISIN.

	ISIN country code (2 letters)	ISIN numeric identifier and single check digit (10 numbers overall)
Row 1	US	3886891015

## SC1.1

(SC1.1) Allocate your emissions to your customers listed below according to the goods or services you have sold them in this reporting period.

**Requesting member**  
Anheuser Busch InBev

**Scope of emissions**  
Scope 1

**Allocation level**  
Company wide

**Allocation level detail**  
<Not Applicable>

**Emissions in metric tonnes of CO2e**  
63785.4931

**Uncertainty (±%)**  
5

**Major sources of emissions**  
Natural Gas

**Verified**  
No

**Allocation method**  
Allocation based on the market value of products purchased

**Please explain how you have identified the GHG source, including major limitations to this process and assumptions made**  
The GHG Source was identified by reviewing invoices of energy purchases.

**Requesting member**  
Anheuser Busch InBev

**Scope of emissions**  
Scope 2

**Allocation level**  
Company wide

**Allocation level detail**  
<Not Applicable>

**Emissions in metric tonnes of CO2e**  
31385.1584

**Uncertainty (±%)**  
5

**Major sources of emissions**  
Electric Power

**Verified**  
No

**Allocation method**  
Allocation based on the market value of products purchased

**Please explain how you have identified the GHG source, including major limitations to this process and assumptions made**  
The GHG Source was identified by reviewing invoices of energy purchases.

**Requesting member**  
Grupo Bimbo, S.A.B. de C.V.

**Scope of emissions**  
Scope 1

**Allocation level**  
Company wide

**Allocation level detail**

<Not Applicable>

**Emissions in metric tonnes of CO2e**

9764.3295

**Uncertainty (±%)**

5

**Major sources of emissions**

Natural Gas

**Verified**

No

**Allocation method**

Allocation based on the market value of products purchased

**Please explain how you have identified the GHG source, including major limitations to this process and assumptions made**

The GHG Source was identified by reviewing invoices of energy purchases.

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**Requesting member**

Grupo Bimbo, S.A.B. de C.V.

**Scope of emissions**

Scope 2

**Allocation level**

Company wide

**Allocation level detail**

<Not Applicable>

**Emissions in metric tonnes of CO2e**

4804.4628

**Uncertainty (±%)**

5

**Major sources of emissions**

Electric Power

**Verified**

No

**Allocation method**

Allocation based on the market value of products purchased

**Please explain how you have identified the GHG source, including major limitations to this process and assumptions made**

The GHG Source was identified by reviewing invoices of energy purchases.

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**Requesting member**

Clorox Company

**Scope of emissions**

Scope 1

**Allocation level**

Company wide

**Allocation level detail**

<Not Applicable>

**Emissions in metric tonnes of CO2e**

9953.4223

**Uncertainty (±%)**

5

**Major sources of emissions**

Natural Gas

**Verified**

No

**Allocation method**

Allocation based on the market value of products purchased

**Please explain how you have identified the GHG source, including major limitations to this process and assumptions made**

The GHG Source was identified by reviewing invoices of energy purchases.

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**Requesting member**

Clorox Company

**Scope of emissions**

Scope 2

**Allocation level**

Company wide

**Allocation level detail**

<Not Applicable>

**Emissions in metric tonnes of CO2e**

4897.5044

**Uncertainty (±%)**

5

**Major sources of emissions**

Electric Power

**Verified**

No

**Allocation method**

Allocation based on the market value of products purchased

**Please explain how you have identified the GHG source, including major limitations to this process and assumptions made**

The GHG Source was identified by reviewing invoices of energy purchases.

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**Requesting member**

Diageo Plc

**Scope of emissions**

Scope 1

**Allocation level**

Company wide

**Allocation level detail**

<Not Applicable>

**Emissions in metric tonnes of CO2e**

1734.2947

**Uncertainty (±%)**

5

**Major sources of emissions**

Natural Gas

**Verified**

No

**Allocation method**

Allocation based on the market value of products purchased

**Please explain how you have identified the GHG source, including major limitations to this process and assumptions made**

The GHG Source was identified by reviewing invoices of energy purchases.

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**Requesting member**

Diageo Plc

**Scope of emissions**

Scope 2

**Allocation level**

Company wide

**Allocation level detail**

<Not Applicable>

**Emissions in metric tonnes of CO2e**

853.3463

**Uncertainty (±%)**

5

**Major sources of emissions**

Electric Power

**Verified**

No

**Allocation method**

Allocation based on the market value of products purchased

**Please explain how you have identified the GHG source, including major limitations to this process and assumptions made**

The GHG Source was identified by reviewing invoices of energy purchases.

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**Requesting member**

Kellogg Company

**Scope of emissions**

Scope 1

**Allocation level**

Company wide

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**Allocation level detail**

<Not Applicable>

**Emissions in metric tonnes of CO2e**

43790.5528

**Uncertainty (±%)**

5

**Major sources of emissions**

Natural Gas

**Verified**

No

**Allocation method**

Allocation based on the market value of products purchased

**Please explain how you have identified the GHG source, including major limitations to this process and assumptions made**

The GHG Source was identified by reviewing invoices of energy purchases.

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**Requesting member**

Kellogg Company

**Scope of emissions**

Scope 2

**Allocation level**

Company wide

**Allocation level detail**

<Not Applicable>

**Emissions in metric tonnes of CO2e**

21546.8027

**Uncertainty (±%)**

5

**Major sources of emissions**

Electric Power

**Verified**

No

**Allocation method**

Allocation based on the market value of products purchased

**Please explain how you have identified the GHG source, including major limitations to this process and assumptions made**

The GHG Source was identified by reviewing invoices of energy purchases.

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**Requesting member**

Keurig Dr Pepper

**Scope of emissions**

Scope 1

**Allocation level**

Company wide

**Allocation level detail**

<Not Applicable>

**Emissions in metric tonnes of CO2e**

12873.3839

**Uncertainty (±%)**

5

**Major sources of emissions**

Natural Gas

**Verified**

No

**Allocation method**

Allocation based on the market value of products purchased

**Please explain how you have identified the GHG source, including major limitations to this process and assumptions made**

The GHG Source was identified by reviewing invoices of energy purchases.

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**Requesting member**

Keurig Dr Pepper

**Scope of emissions**

Scope 2

**Allocation level**

Company wide

**Allocation level detail**

<Not Applicable>

**Emissions in metric tonnes of CO2e**

6334.2489

**Uncertainty (±%)**

5

**Major sources of emissions**

Electric Power

**Verified**

No

**Allocation method**

Allocation based on the market value of products purchased

**Please explain how you have identified the GHG source, including major limitations to this process and assumptions made**

The GHG Source was identified by reviewing invoices of energy purchases.

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**Requesting member**

The LEGO Group

**Scope of emissions**

Scope 1

**Allocation level**

Company wide

**Allocation level detail**

<Not Applicable>

**Emissions in metric tonnes of CO2e**

2600.5519

**Uncertainty (±%)**

5

**Major sources of emissions**

Natural Gas

**Verified**

No

**Allocation method**

Allocation based on the market value of products purchased

**Please explain how you have identified the GHG source, including major limitations to this process and assumptions made**

The GHG Source was identified by reviewing invoices of energy purchases.

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**Requesting member**

The LEGO Group

**Scope of emissions**

Scope 2

**Allocation level**

Company wide

**Allocation level detail**

<Not Applicable>

**Emissions in metric tonnes of CO2e**

1279.5814

**Uncertainty (±%)**

5

**Major sources of emissions**

Electric Power

**Verified**

No

**Allocation method**

Allocation based on the market value of products purchased

**Please explain how you have identified the GHG source, including major limitations to this process and assumptions made**

The GHG Source was identified by reviewing invoices of energy purchases.

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**Requesting member**

McDonald's Corporation

**Scope of emissions**

Scope 1

**Allocation level**

Company wide

**Allocation level detail**

<Not Applicable>

**Emissions in metric tonnes of CO2e**

44157.1531

**Uncertainty (±%)**

5

**Major sources of emissions**

Natural Gas

**Verified**

No

**Allocation method**

Allocation based on the market value of products purchased

**Please explain how you have identified the GHG source, including major limitations to this process and assumptions made**

The GHG Source was identified by reviewing invoices of energy purchases.

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**Requesting member**

McDonald's Corporation

**Scope of emissions**

Scope 2

**Allocation level**

Company wide

**Allocation level detail**

<Not Applicable>

**Emissions in metric tonnes of CO2e**

21727.1855

**Uncertainty (±%)**

5

**Major sources of emissions**

Electric Power

**Verified**

No

**Allocation method**

Allocation based on the market value of products purchased

**Please explain how you have identified the GHG source, including major limitations to this process and assumptions made**

The GHG Source was identified by reviewing invoices of energy purchases.

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**Requesting member**

PepsiCo, Inc.

**Scope of emissions**

Scope 1

**Allocation level**

Company wide

**Allocation level detail**

<Not Applicable>

**Emissions in metric tonnes of CO2e**

62468.4673

**Uncertainty (±%)**

5

**Major sources of emissions**

Natural Gas

**Verified**

No

**Allocation method**

Allocation based on the market value of products purchased

**Please explain how you have identified the GHG source, including major limitations to this process and assumptions made**

The GHG Source was identified by reviewing invoices of energy purchases.

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**Requesting member**

PepsiCo, Inc.

**Scope of emissions**

Scope 2

**Allocation level**

Company wide

**Allocation level detail**

<Not Applicable>

**Emissions in metric tonnes of CO2e**

30737.1261

**Uncertainty (±%)**

5

**Major sources of emissions**

Electric Power

**Verified**

No

**Allocation method**

Allocation based on the market value of products purchased

**Please explain how you have identified the GHG source, including major limitations to this process and assumptions made**

The GHG Source was identified by reviewing invoices of energy purchases.

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**Requesting member**

The Coca-Cola Company

**Scope of emissions**

Scope 1

**Allocation level**

Company wide

**Allocation level detail**

<Not Applicable>

**Emissions in metric tonnes of CO2e**

29842.2588

**Uncertainty (±%)**

5

**Major sources of emissions**

Natural Gas

**Verified**

No

**Allocation method**

Allocation based on the market value of products purchased

**Please explain how you have identified the GHG source, including major limitations to this process and assumptions made**

The GHG Source was identified by reviewing invoices of energy purchases.

---

**Requesting member**

The Coca-Cola Company

**Scope of emissions**

Scope 2

**Allocation level**

Company wide

**Allocation level detail**

<Not Applicable>

**Emissions in metric tonnes of CO2e**

14683.6526

**Uncertainty (±%)**

5

**Major sources of emissions**

Electric Power

**Verified**

No

**Allocation method**

Allocation based on the market value of products purchased

**Please explain how you have identified the GHG source, including major limitations to this process and assumptions made**

The GHG Source was identified by reviewing invoices of energy purchases.

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**Requesting member**

Unilever plc

**Scope of emissions**

Scope 1

**Allocation level**

Company wide

**Allocation level detail**

<Not Applicable>

**Emissions in metric tonnes of CO2e**

3241.4265

**Uncertainty (±%)**

5

**Major sources of emissions**

Natural Gas

**Verified**

No

**Allocation method**

Allocation based on the market value of products purchased

**Please explain how you have identified the GHG source, including major limitations to this process and assumptions made**

The GHG Source was identified by reviewing invoices of energy purchases.

---

**Requesting member**

Unilever plc

**Scope of emissions**

Scope 2

**Allocation level**

Company wide

**Allocation level detail**

<Not Applicable>

**Emissions in metric tonnes of CO2e**

1594.9188

**Uncertainty (±%)**

5

**Major sources of emissions**

Electric Power

**Verified**

No

**Allocation method**

Allocation based on the market value of products purchased

**Please explain how you have identified the GHG source, including major limitations to this process and assumptions made**

The GHG Source was identified by reviewing invoices of energy purchases.

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**Requesting member**

Walmart, Inc.

**Scope of emissions**

Scope 1

**Allocation level**

Company wide

**Allocation level detail**

<Not Applicable>

**Emissions in metric tonnes of CO2e**

3147.6627

**Uncertainty (±%)**

5

**Major sources of emissions**

Natural Gas

**Verified**

No

**Allocation method**

Allocation based on the market value of products purchased

**Please explain how you have identified the GHG source, including major limitations to this process and assumptions made**

The GHG Source was identified by reviewing invoices of energy purchases.

---

**Requesting member**

Walmart, Inc.

**Scope of emissions**

Scope 2

**Allocation level**

Company wide

**Allocation level detail**

<Not Applicable>

**Emissions in metric tonnes of CO2e**

1548.7831

**Uncertainty (±%)**

5

**Major sources of emissions**

Electric Power

**Verified**

No

**Allocation method**

Allocation based on the market value of products purchased

**Please explain how you have identified the GHG source, including major limitations to this process and assumptions made**

The GHG Source was identified by reviewing invoices of energy purchases.

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**Requesting member**

S.C. Johnson & Son, Inc.

**Scope of emissions**

Scope 1

**Allocation level**

Company wide

**Allocation level detail**

<Not Applicable>

**Emissions in metric tonnes of CO2e**

4791.7384

**Uncertainty (±%)**

5

**Major sources of emissions**

Natural Gas

**Verified**

No

**Allocation method**

Allocation based on the market value of products purchased

**Please explain how you have identified the GHG source, including major limitations to this process and assumptions made**

The GHG Source was identified by reviewing invoices of energy purchases.

---

**Requesting member**

S.C. Johnson & Son, Inc.

**Scope of emissions**

Scope 2

**Allocation level**

Company wide

**Allocation level detail**

<Not Applicable>

**Emissions in metric tonnes of CO2e**

2357.7378

**Uncertainty (±%)**

5

**Major sources of emissions**

Electric Power

**Verified**

No

**Allocation method**

Allocation based on the market value of products purchased

**Please explain how you have identified the GHG source, including major limitations to this process and assumptions made**

The GHG Source was identified by reviewing invoices of energy purchases.

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**SC1.2**

(SC1.2) Where published information has been used in completing SC1.1, please provide a reference(s).

### SC1.3

(SC1.3) What are the challenges in allocating emissions to different customers, and what would help you to overcome these challenges?

Allocation challenges	Please explain what would help you overcome these challenges
We face no challenges	At this time there are only a few customers requesting allocation. Using global sales to each requesting customer streamlines the process.

### SC1.4

(SC1.4) Do you plan to develop your capabilities to allocate emissions to your customers in the future?

No

### SC1.4b

(SC1.4b) Explain why you do not plan to develop capabilities to allocate emissions to your customers.

Using the current method of global sales for a customer provides a good estimate of the GHG for our customers.

### SC2.1

(SC2.1) Please propose any mutually beneficial climate-related projects you could collaborate on with specific CDP Supply Chain members.

**Requesting member**

The Coca-Cola Company

**Group type of project**

New product or service

**Type of project**

New product or service that has a lower upstream emissions footprint

**Emissions targeted**

Actions that would reduce both our own and our customers' emissions

**Estimated timeframe for carbon reductions to be realized**

1-3 years

**Estimated lifetime CO2e savings**

1000

**Estimated payback**

1-3 years

**Details of proposal**

Explore innovative structural design and board thickness options which will reduce the amount of paperboard for the package along with transportation solutions that use renewable energy.

**Requesting member**

The LEGO Group

**Group type of project**

New product or service

**Type of project**

New product or service that has a lower upstream emissions footprint

**Emissions targeted**

Actions that would reduce both our own and our customers' emissions

**Estimated timeframe for carbon reductions to be realized**

1-3 years

**Estimated lifetime CO2e savings**

300

**Estimated payback**

1-3 years

**Details of proposal**

Explore innovative structural design and board thickness options which will reduce the amount of paperboard for the package along with transportation solutions that use renewable energy.

**Requesting member**

Kellogg Company

**Group type of project**

New product or service

**Type of project**

New product or service that has a lower upstream emissions footprint

**Emissions targeted**

Actions that would reduce both our own and our customers' emissions

**Estimated timeframe for carbon reductions to be realized**

1-3 years

**Estimated lifetime CO2e savings**

1000

**Estimated payback**

1-3 years

**Details of proposal**

Explore innovative structural design and board thickness options which will reduce the amount of paperboard for the package along with transportation solutions that use renewable energy.

**Requesting member**

Diageo Plc

**Group type of project**

New product or service

**Type of project**

New product or service that has a lower upstream emissions footprint

**Emissions targeted**

Actions that would reduce both our own and our customers' emissions

**Estimated timeframe for carbon reductions to be realized**

1-3 years

**Estimated lifetime CO2e savings**

20

**Estimated payback**

1-3 years

**Details of proposal**

Explore innovative structural design and board thickness options which will reduce the amount of paperboard for the package along with transportation solutions that use renewable energy.

SC2.2

**(SC2.2) Have requests or initiatives by CDP Supply Chain members prompted your organization to take organizational-level emissions reduction initiatives?**

No

SC4.1

**(SC4.1) Are you providing product level data for your organization's goods or services?**

No, I am not providing data

Submit your response

**In which language are you submitting your response?**

English

**Please confirm how your response should be handled by CDP**

	I am submitting to	Public or Non-Public Submission	Are you ready to submit the additional Supply Chain questions?
I am submitting my response	Investors Customers	Public	Yes, I will submit the Supply Chain questions now

**Please confirm below**

I have read and accept the applicable Terms