

C0. Introduction

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C0.1

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

Ball Corporation (herein referred to as “Ball”, “we”, “us” or “our”) supplies innovative, sustainable packaging solutions for beverage, personal care and household products customers, as well as aerospace and other technologies and services primarily for the U.S. government. Ball’s 2019 financial results, including net sales of \$11.5 billion, were fuelled by the diligent focus of our 18,300 employees on Drive for 10 – our common vision to achieve continued success for Ball and all of our stakeholders over the long term. For more information, visit [www.ball.com](http://www.ball.com), or connect with us on Facebook or Twitter.

To ensure information and comparisons are reliable and meaningful over time, and to allow stakeholders to perform consistent trend analyses of our sustainability performance over multiple years, all 2010-2019 sustainability data included in our sustainability reporting is reflective of Ball’s company footprint post-material divestitures and acquisitions. In addition to reporting Ball’s latest environmental performance data online, Ball annually updates historical environmental performance data as necessary if updated emission factors or more accurate activity data become available. The bulleted list below is a record of material organizational change and the associated impacts on our environmental performance data:

- On June 30, 2016, Ball announced the completion of its acquisition of Rexam PLC and required divestitures, which resulted in significant changes to the company’s manufacturing footprint. All 2010-2019 sustainability data included in our sustainability reporting is reflective of Ball’s company footprint post-close of the Rexam acquisition.
- On June 21, 2018, Ball and Platinum Equity announced an agreement to form a tinplate steel food & aerosol container joint venture, to be named Ball Metalpack, and the deal was completed on July 31, 2018. Platinum Equity owns 51% of Ball Metalpack and Ball Corporation now owns 49%. As of this date the Metalpack assets are no longer under the operational control of Ball and are therefore outside the scope of Ball’s environmental performance reporting requirement. All 2010-2019 sustainability data included in our CDP submission as well as the Ball Sustainability website are reflective of Ball’s 2018 divestiture of Metalpack.
- On September 30, 2019 Ball divested its Chinese Beverage Packaging operations, which included four beverage can manufacturing facilities. All 2010-2019 sustainability data included in our CDP submission as well as the Ball Sustainability website are reflective of Ball’s 2019 divestiture of its Chinese Beverage Packaging operations.

In 2019, for the sixth consecutive year, Ball was listed on the DJSI World and DJSI North America indices. Ball scored particularly well on criteria integral to our Drive for 10 and sustainability strategies, such as product stewardship, occupational health and safety, codes of business conduct, and environmental reporting.

For additional information please visit, [www.ball.com/sustainability](http://www.ball.com/sustainability).

C0.2

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**(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 2019	December 31 2019	No	<Not Applicable>

C0.3

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

Argentina  
Austria  
Brazil  
Canada  
Chile  
China, Hong Kong Special Administrative Region  
Czechia  
Denmark  
Egypt  
Finland  
France  
Germany  
Guatemala  
India  
Ireland  
Italy  
Mexico  
Myanmar  
Netherlands  
Panama  
Paraguay  
Poland  
Russian Federation  
Saudi Arabia  
Serbia  
Spain  
Sweden  
Switzerland  
Turkey  
United Kingdom of Great Britain and Northern Ireland  
United States of America  
Viet Nam

**C0.4**

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

USD

**C0.5**

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

Operational control

**C1. Governance**

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**C1.1**

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

Yes

**C1.1a**

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**(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	The highest level of direct responsibility for climate-related issues within Ball resides with Ball's Nominating/Corporate Governance Committee (the "Committee"), which is a standing committee of Ball's Board of Directors (the "Board"). Ball's sustainability efforts, including climate-related issues, are reviewed and discussed by the Nominating/Corporate Governance Committee. In support of their fiduciary duties, the Board has oversight of applicable corporate risks, including climate-related risks, so as to satisfy itself that management has in place appropriate risk management policies and procedures which are functioning as directed. The Committee is responsible for reviewing our performance and strategy related to climate-related risks and opportunities and raising climate-related issues during board meetings, as necessary. Climate-related impacts have become an increasingly prominent aspect of board meetings due to increased demand for low-carbon and circular products, such as aluminum packaging, to support the global transition towards a low-carbon economy.
Chief Executive Officer (CEO)	Ball's chairman, president, and chief executive officer, who is on Ball's Board of Directors, is an integral member of Ball's Sustainability Steering Committee ("SSC"). Ball's SSC is responsible for Ball's climate-related issue management and reports to the Nominating/Corporate Governance Committee (the "Committee") of the Board of Directors (the "Board"). The primary purpose of the SSC is to assist the Board in fulfilling its responsibility to ensure that climate-related risks and opportunities among other social, environmental and ethical risks and opportunities are managed appropriately. As an example of a climate-related decision made by the CEO in 2019, Ball developed a new executive-level role to integrate commercial and sustainability strategies into global operations. This role is called the Chief Commercial and Sustainability Officer and is explained in more detail below.
Chief Sustainability Officer (CSO)	In June 2019, Ball created the Chief Commercial and Sustainability Officer (CCSO) role to more fully integrate commercial and sustainability strategies, and focus on maximizing the efficiency and effectiveness of the commercial function. Ball's CCSO is responsible for the development of Ball's vision for market and sustainability leadership, and aligning our commercial and sustainability teams behind this vision. Together with the Global Sustainability team, the CCSO leads the development and execution of Ball's climate and broader sustainability strategy. Through these efforts, Ball is leveraging the significant sustainability credentials of aluminum beverage packaging to benefit our customers around the world. The CCSO, member of the Sustainability Steering Committee, is also responsible for formally briefing the board on climate-related and other sustainability issues annually in the third quarter board meeting. As an example of a climate-related decision made by the CCSO in 2019, Ball revised its 2°C science-based target (SBT) to a more aggressive 1.5°C SBT to align with the latest science developed by the Intergovernmental Panel on Climate Change (IPCC). Our 1.5°C SBT was approved by the Science Based Targets initiative (SBTi) in early 2020.

**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 – some meetings	Reviewing and guiding strategy Reviewing and guiding business plans Setting performance objectives Monitoring and overseeing progress against goals and targets for addressing climate-related issues	<Not Applicable>	Ball's Board of Directors meets quarterly. The Chief Commercial and Sustainability Officer, who is a member of the Sustainability Steering Committee and oversees Ball's sustainability department, is responsible for formally briefing the board on climate-related and other sustainability issues annually in the third quarter board meeting. The Chief Commercial and Sustainability Officer is responsible for reporting accurate and up-to-date information regarding opportunities to reduce climate-related risk for the corporation and Ball's performance on greenhouse gas targets, among other topics. This briefing on climate-related and other sustainability issues is considered in conjunction with other briefings during the board meeting to inform decisions on the overall strategy of each business, business plans, and setting performance objectives for the following year. For example, in each quarter of the reporting period, the Chief Commercial and Sustainability Officer presented on Ball's strategy and progress on expanding our global renewable energy portfolio. At the start of 2019, we signed two virtual power purchase agreements to address 100% of our electricity load in North America with renewable energy by the end of 2021. In late 2019, we continued to source renewable energy in Europe. Ball has now also signed two long-term virtual power purchase agreements, one in Spain and one in Sweden, covering the electricity load of 10 beverage packaging plants. By expanding our renewable energy portfolio, Ball is leveraging climate-related opportunities to address climate risk.

**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
Chief Executive Officer (CEO) <i>Ball's Sustainability Steering Committee ("SSC"). Members of the SSC include the CEO, SVP &amp; CFO, SVP &amp; COO, CCSO, SVP human resources and administration, VP Finance Ball Aerospace, divisional presidents, corporate VPs who lead various functions including global sourcing, diversity &amp; inclusion, communications and corporate relations, as well as the director of global sustainability.</i>	<Not Applicable>	Both assessing and managing climate-related risks and opportunities <i>See description of responsibilities of Ball's Sustainability Steering Committee ("SSC") in C1.2a</i>	<Not Applicable>	Half-yearly
Sustainability committee	<Not Applicable>	Both assessing and managing climate-related risks and opportunities	<Not Applicable>	Half-yearly

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).**

Responsibility for Ball's climate-related issue management resides with Ball's Sustainability Steering Committee ("SSC"), which reports to the Nominating/Corporate Governance Committee (the "Committee") of the Board of Directors (the "Board"). The primary purpose of the SSC is to assist the Board in fulfilling its responsibility to ensure that climate-related risks and opportunities among other social, environmental and ethical risks and opportunities are managed appropriately. The responsibility for climate related risks and opportunities lies with the SSC because its members represent a diverse array of Ball's most senior decision-makers. By including diverse decision-makers in the conversation around climate-related issues, Ball is able to identify potential climate risks and opportunities. Members of the SSC include the CEO, SVP & CFO, SVP & COO, SVP human resources and administration, CCSO, VP Finance Ball Aerospace, divisional presidents, corporate VPs who lead various functions including global sourcing, diversity & inclusion, communications and corporate relations, as well as the director of global sustainability. Ball's sustainability department, who has responsibility for monitoring climate-related issues, reports to the Chief Commercial & Sustainability Officer who is responsible for formally reporting directly to the Board as a representative of the SSC on an annual basis.

**SSC Roles:**

- SVP & CFO – Ensures that programs to address climate-related risks & opportunities (R&Os) align with the financial actions and goals of the company
- SVP HR & Administration (committee chair) - Ensures alignment of resources and planning with programs to address climate-related R&Os
- SVP & COO Global Beverage Packaging - Ensures alignment of programs to address climate-related R&Os with our Global Beverage Packaging Business
- CCSO Global Beverage Packaging – Presents on identified climate-related R&Os, among other sustainability topics, and strategies to address
- Vice President and General Manager Aerosol Packaging - Ensures alignment of programs to address climate-related R&Os with our Global Aerosol Packaging Business
- Vice President Finance Ball Aerospace - Ensures alignment of programs to address climate-related R&Os with the business strategy of Ball Aerospace
- President BPNCA – Provides insight into division-specific climate-related risks and opportunities
- President BPSA - Provides insight into division-specific climate-related risks and opportunities
- President BPE - Provides insight into division-specific climate-related risks and opportunities
- President BPAMEA – Provides insight into division-specific climate-related risks and opportunities
- President BPAP - Provides insight into division-specific climate-related risks and opportunities
- VP Communications & Corporate Relations - Provides insight into communications
- VP Strategic Sourcing - Ensures alignment between sourcing strategy and programs to address climate-related R&Os
- VP Talent Management - Ensures alignment between resource planning and programs to address climate-related R&Os
- VP Global Beverage Innovation - Ensures alignment between innovation priorities and programs to address climate-related R&Os
- Director Corporate Relations, Executive Director The Ball Foundation - Ensures alignment between social impact programs and programs to address climate-related R&Os
- Director Global Public Affairs - Ensures alignment between climate-related opportunities and external shareholders and stakeholders
- Director Global Sustainability – Presents on identified climate-related R&Os, among other sustainability topics, and strategies to address
- Manager Global Sustainability – Presents on identified climate-related R&Os, among other sustainability topics, and strategies to address

The primary purpose of the SSC is to assist the Board in fulfilling its responsibility to ensure that sustainability risks and opportunities are managed appropriately, including climate-related issues. The SSC's responsibilities include: reviewing the effectiveness of Ball's policies and practices in anticipating and managing issues of internal and external stakeholders that have the potential to seriously impact the Company's business and reputation; reviewing climate-related risks and effects of climate change events; reviewing and challenging Ball's performance on sustainability matters including climate-related corporate strategies, policies and standards; setting climate-related goals and ensuring progress towards achieving our goals; reviewing the company's communication and training in relation to sustainability policies and procedures and ensuring that sustainability becomes an integral part of the management and day-to-day business throughout the company; and, reviewing annually the Committee's own performance, constitution and charter to ensure it is operating at maximum effectiveness and recommend any changes it considers necessary to the Board for approval.

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
Chief Sustainability Officer (CSO)	Monetary reward	Emissions reduction project Efficiency project Supply chain engagement	The performance of Ball's Chief Commercial and Sustainability Officer is graded annually, and part of the performance appraisal is based on the development and execution of Ball's climate and broader sustainability strategy. This strategy includes energy efficiency projects to reduce Scope 1 emissions, Scope 2 emissions reductions projects through renewable energy procurement, and supply chain engagement to reduce Scope 3 emissions. Ball has committed to Scope 1, 2, and 3 reduction targets and by making progress towards those targets the CCSO is meeting their performance objectives.
Facilities manager	Monetary reward	Energy reduction target	The performance of Ball's plant managers is graded annually. Part of the plant managers' performance appraisal is based on the plant's progress related to six key sustainability metrics, including but not limited to electricity and natural gas. The extent to which plants meet their annual energy efficiency/climate change goals ultimately impacts plant manager grading and future remuneration.
Process operation manager	Monetary reward	Energy reduction project Energy reduction target	A process operation manager's performance is assessed based on the achieved decrease of production costs, among other areas. One way to significantly reduce these costs is through energy efficiency improvements. Through projects such as lighting replacements or awareness campaigns, and maintenance or machinery upgrades, process operation managers contribute directly to our emissions reduction targets. Every two years, plants set targets for electricity and natural gas efficiency. By meeting plant targets, operation managers are rewarded monetarily for their leadership in the plant reaching its goal to reduce emissions.
All employees	Monetary reward	Emissions reduction project	Ball runs an incentivized idea management program for employees, including the executive team, which rewards improvement ideas with monetary bonus payments. The system rewards ideas that directly tie to our target to reduce GHG intensity, among others.
All employees	Monetary reward	Energy reduction target	Annually, Ball recognizes employees at one manufacturing plant in each division of Ball's businesses with the R. David Hoover Sustainability Award. The annual award recognizes one plant in each division of Ball's businesses for year-over-year and longer-term operational improvements in areas such as energy and water efficiency, as well as their role as product stewards, community ambassadors and team players. The most successful facility in each division receives the award. In addition to the pride that employees of the winning plants take from winning the award, they also receive a trophy that is awarded by senior management during a facility celebration and plant visit. Overall, this award drives process improvements across the business, especially regarding energy efficiency, as it has encouraged best practice sharing, collaboration, transparency across the business divisions, and overall employee engagement and commitment to our operational and sustainability priorities. Since several award criteria are directly linked to climate change, it clearly incentivizes all employees to meet improvement goals. This award has been in place since 2011 in honor of the company's former chairman, president and CEO, who was a key driver in the development of Ball's formal sustainability program.

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	2	
Medium-term	2	10	
Long-term	10		

C2.1b

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

At Ball, we define substantive impacts from climate-related risk as any significant financial, environmental or social impact to our operations that forces us to stop production based on climate-related risk. Ball recognizes that climate-related risks have the potential to disrupt production directly as well as indirectly, through our value chain. As a quantifiable indicator, the threshold for a financial impact that we would define as substantive to our direct operations would be an impact above \$4,500,000.

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**

Company level identification, monitoring and managing risks and opportunities ("R&Os") are conducted through divisional planning and controlling processes integrated at all organizational levels. Among the highest level of R&O management is with our Chief Commercial & Sustainability Officer who is responsible for briefing the Board on climate-related impacts. Each business division's risk management coordinator and upper management executive is responsible for risk management and early identification of R&Os and allocating resources to monitor/manage risks at the asset level. Monthly, divisional teams discuss results of facility energy reports to identify consumption and GHG emissions reduction projects. Bi-weekly meetings are held with divisional presidents to analyze energy issues, R&Os and prioritize projects. All risks are prioritized using a method calculating probability, timeline (near-term, medium-term, or long-term), and potential financial implications. Energy teams depend on engineering and EHS to verify data and provide energy performance data, including trend analysis. Internal audit identifies and documents risk areas. Divisional leaders provide input to the external affairs department ensuring legislative developments, costs of regulatory compliance and rising energy costs are monitored to guide strategic business decisions, including product development and capital projects. At the facility level R&O assessments include the evaluation of asset risks in our environmental management system. Site-specific analysis regarding current and future risks related to climate change is used to prioritize projects and develop ongoing plans to mitigate risks or minimize potential business impacts. Each facility has its own energy performance improvement plan, which is monitored by energy teams that meet bi-monthly. These energy teams include risk managers who gather advice from insurance companies. These teams are also tasked with identifying opportunities to improve energy efficiency. Opportunities are evaluated based on risk and cost. Locations, logistics, liabilities, location of suppliers and risks to the supply chain are considered, as well as climate change-related risks such as flooding or access to freshwater. In the reporting period, Ball managed the potential impact of physical risks associated with extreme weather events by implementing this risk management process. In 2019 no downtime was recorded as a result of climate-related events due to enhanced measures to limit Ball's exposure to physical climate-related events. Ball is able to leverage our diverse and extensive network of manufacturing facilities to address any potential risk of extreme weather events and continue to supply our customers without interruption. In the reporting period, Ball managed the potential transition risk associated with shifts in customer and consumer preferences by implementing this risk management process. During the reporting period Ball expanded its global renewable energy strategy and moved towards dramatically reducing Scope 2 emissions associated with our operations. In early 2019, Ball negotiated and signed two Virtual Power Purchase Agreements (VPPAs) to address 100% of Ball's North American electricity load utilized in its corporate, packaging and aerospace operations by the end of 2021. As a result of these North American agreements, Ball was recognized as one of the top 10 largest renewable energy buyers in 2019. In late 2019, Ball also continued to explore renewable energy opportunities in Europe. Ball has now also signed two long-term VPPAs, one in Spain and one in Sweden, covering the electricity load of approximately 10 beverage packaging plants. Starting in 2020, Ball will purchase Energy Attribute Certificates (EACs) to maintain 100% renewable energy in Europe (excluding Russia) until the renewable energy from the Spain and Sweden VPPAs are online. These projects will help to mitigate the risk posed by transitioning to a low carbon economy, and seize an opportunity by building a strategy towards offering a lower carbon product to our customers.

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C2.2a

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

	Relevance & inclusion	Please explain
Current regulation	Relevant, always included	Ball, its customers and suppliers are subject to complex federal, state and provincial laws and regulations. All of our facilities are subject to federal, state, provincial and local licensing and regulation by health, environmental, workplace safety and other agencies in multiple jurisdictions. Requirements of governmental authorities with respect to manufacturing, manufacturing facility locations within the jurisdiction, product content and safety, climate change, workplace safety and health, environmental, expropriation of assets and other standards could adversely affect our ability to manufacture or sell our products, and the ability of our customers and suppliers to manufacture and sell their products. In addition, significant environmental, employment-related and other legislation and regulatory requirements exist and are also evolving. The compliance costs associated with current and proposed laws and potential regulations could be substantial, and any failure or alleged failure to comply with these laws or regulations could lead to litigation or governmental action, all of which could adversely affect our financial condition or results of operations. The regional Legislative and Public Affairs teams at Ball are responsible for assessing current and future risks associated with current regulation.
Emerging regulation	Relevant, always included	Carbon taxes in single countries or across a confederation of states could negatively impact our operation costs, procurement costs and could potentially increase costs of our packaged goods for the end consumer. As governments around the world begin to develop plans to achieve their stated contribution to the Paris Climate Agreement, there is a possibility of national or regional cap and trade schemes being implemented and enforced in countries that Ball operates in. Depending on how the boundaries for such schemes will be set, Ball may be impacted by respective schemes in the future. The regional Legislative and Public Affairs team at Ball are responsible for assessing current and future risks associated with emerging regulations.
Technology	Relevant, always included	Our success depends partially on our ability to improve production processes and services. We must also introduce new products and services to meet changing customer needs. If we are unable to implement better production processes or to develop new products through research and development or licensing of new technology, we may not be able to remain competitive. As a result, our business, financial condition or results of operations could be adversely affected. The Global Innovation team at Ball is responsible for assessing current and future risks associated with current regulation.
Legal	Not relevant, explanation provided	Ball is not currently and does not anticipate being subjected to any climate-related litigation claims based on the calendar year 2019 footprint of our business. The Legal team at Ball is responsible for assessing current and future legal risks.
Market	Relevant, always included	Over the past several years, there has been a substantial increase in the demand from consumers - and consequently from our customers - for "more sustainable products." Because consumer perception of the packaging we produce is critical to our business, we work towards further optimizing our products while maintaining their integrity. The Commercial & Sustainability teams at Ball are responsible for assessing current and future market risks.
Reputation	Relevant, always included	Reputational risks exist related to ethical conduct and responsible business practices at Ball, within our supply chain and our downstream partners. Reputational risks can significantly impact Ball in many ways. For instance, if our products become less popular due to a decrease in reputation, we can lose customers; therefore revenue. Furthermore, our reputation plays a part in the talent we attract for our workforce and the overall opinion of the communities in which we live and operate. For instance, we must protect the environment around our operations, as these communities depend on the resources we share. If we were to negatively impact these resources, we could see increased fines. The Commercial & Sustainability teams at Ball are responsible for assessing current and future reputation risks.
Acute physical	Relevant, sometimes included	Change in temperature extremes can reduce demand for certain beverages packaged in our containers. In addition, with a higher frequency of temperate extremes comes more extreme weather events, such as hurricanes and flooding. These events can lead to damage to our facilities, causing interruptions in production, transportation or production capacity as well as impact the supply of our materials. In addition, the availability of water can impact the ability of our beverage customers to extract/use water for their products and can reduce the demand for beverage containers. Tropical cyclones can affect our suppliers, our facilities, our customers as well as disrupt business continuity in our plants. Ball has manufacturing facilities across the world and the potential for physical impacts of climate change varies by region. In case severe weather outbreaks hit regions in which we operate, this can pose threats to the physical structures of our facilities, our employees and our logistics. Acute physical risks are sometimes included in our Enterprise Risk Management process based on probability of acute weather occurrences. The Enterprise Risk Management team at Ball is responsible for assessing current and future physical risks.
Chronic physical	Relevant, not included	Risks associated with longer-term shifts in climate patterns are relevant but currently not included regular climate-related risk assessments. Ball is aware that chronic physical risks are relevant due to our familiarity with the climate science developed by the IPCC. Chronic risks, however, have not been included because our current models do not yet account for long-term shifts in climate patterns such as sea level risk or chronic heat waves.

**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**

Emerging regulation	Carbon pricing mechanisms
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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**

Due to growing international interest in climate policy to manage GHG emissions and Ball's expanding global footprint, the potential for increased costs from carbon taxes is a risk to Ball. Carbon taxes in single countries or across a confederation of states could negatively impact our operational costs, procurement costs and could potentially increase costs of our packaged goods for the end consumer. Although, none of our manufacturing facilities currently are subject to a direct carbon tax, Ball's facilities are experiencing indirect costs through carbon taxes on large power producers in countries such as Canada, Chile, and the United Kingdom.

**Time horizon**

Medium-term

**Likelihood**

More likely than not

**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)**

4100000

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

&lt;Not Applicable&gt;

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

&lt;Not Applicable&gt;

**Explanation of financial impact figure**

Unlike cap and trade schemes, it seems carbon taxes are more politically acceptable for some governments. In 2019, our U.S. manufacturing facilities emitted 204,383 metric tons of GHG emissions (Scope 1). If, for example, the US government would introduce a new carbon tax of \$20 per metric ton of carbon dioxide emissions, this would add approximately \$4.1 million annually to Ball's cost structure at current emissions levels. Outside of these direct costs additional costs may occur due to additional administrative requirements and increased electricity, raw material and transportation costs.

**Cost of response to risk**

4000000

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

We monitor changes in regulation and support the forming of opinions based on our expertise. Ball's new, approved, 1.5°C Science-Based GHG reduction target, combined with energy efficiency measures in all our plants and the use of renewable energy reduces the risk of carbon taxes. Projects associated with these energy efficiency measures in our facilities include, for example, implementing a burner replacement and vent valve replacement in our Fort Atkinson, WI, Tampa, FL, and Williamsburg, VA beverage facilities in 2019 are saving 1,355 metric tons of CO<sub>2</sub>e annually. With projects like this, we reduce the risk of future carbon taxes as we are reducing our Scope 1 GHG emissions. Additionally, in the reporting period, Ball negotiated and signed two Virtual Power Purchase Agreements (VPPAs), one wind and one solar, for 388 MW of new renewable energy to address 100% of Ball's North American electricity load utilized in its corporate, packaging and aerospace operations by the end of 2021. Through our trade associations we also remain engaged in efforts to reduce GHG emissions through policies that further provide incentives for energy efficiency projects. Significant costs associated with these actions are related to capital projects, labor costs and in the case of trade associations, membership fees. Because energy costs are already a significant cost factor, energy efficiency is being continuously improved at our plants and we invest in energy efficiency projects each year. For instance, in 2019 we invested over \$4 million in energy-related projects globally.

**Comment****Identifier**

Risk 2

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

Direct operations

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

Emerging regulation	Carbon pricing mechanisms
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**Primary potential financial impact**

Increased direct costs

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

&lt;Not Applicable&gt;

**Company-specific description**

As governments around the world continue to set climate-related legislation to achieve their stated contribution to the Paris Climate Agreement, there is a possibility of national or regional cap and trade schemes being implemented and enforced in countries that Ball operates in. Depending on how the boundaries for such schemes will be set, Ball may be impacted by respective schemes in the future. As an example, Ball has three manufacturing plants in Mexico, which has announced plans to launch a new emissions trading scheme (ETS). The mandatory ETS is to be preceded by a pilot phase, which will run for three years before the ETS begins in 2023.

**Time horizon**

Short-term

**Likelihood**

About as likely as not

**Magnitude of impact**

Medium

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

Yes, a single figure estimate

**Potential financial impact figure (currency)**

176150

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

&lt;Not Applicable&gt;

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

&lt;Not Applicable&gt;

**Explanation of financial impact figure**

Depending on the design of new cap and trade schemes or modifications to existing schemes, the potential financial implications can vary. In 2019, our Mexican manufacturing facilities emitted 17,615 metric tons of GHG emissions (scope 1). If for example, the new Mexico ETS would be extended to include Ball's Mexico manufacturing facilities at \$10 per metric ton of carbon dioxide emissions, this could add more than \$176,150 annually to Ball's cost structure at current emission levels. Outside of these direct costs additional costs may occur due to additional administrative requirement and increased electricity, raw material and transportation costs.

**Cost of response to risk**

100000

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

Our Legislative and Public Affairs and EHS departments monitor changes in regulation and support the forming of opinion based on our expertise. We are continually working to reach our GHG emission reduction target, which puts ourselves in a better position to reduce potential future costs related to cap and trade schemes. Significant costs associated with these actions are limited to the labor costs associated with compliance. To arrive at \$100,000 we calculated the average annual salaries of our highest level compliance employee and our lowest level compliance employee

**Comment****Identifier**

Risk 3

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

Direct operations

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

Current regulation	Carbon pricing mechanisms
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**Primary potential financial impact**

Increased direct costs

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

&lt;Not Applicable&gt;

**Company-specific description**

Energy taxes and regulations can lead to increased operational costs for Ball. One example is the Climate Change Agreement (CCA) in the United Kingdom (U.K.) where we operate three manufacturing plants (as of July 2020). Ball is classified as an "intensive user" and as such qualifies for inclusion in the agreement. The principal of the CCA is that a surcharge is added to the energy bill and rebated back provided the CCA member can demonstrate its adherence to agreed and continued reduction targets. The first CCA ran from 2001 to March 2013. The second consecutive agreement started in 2013 and will run to 2023. Our U.K. plants continue to improve energy efficiency to meet the agreed reduction targets in order to benefit from the rebate.

**Time horizon**

Short-term

**Likelihood**

Likely

**Magnitude of impact**

Medium-low

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

Yes, a single figure estimate

**Potential financial impact figure (currency)**

472897

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

&lt;Not Applicable&gt;

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

&lt;Not Applicable&gt;

**Explanation of financial impact figure**

In the mentioned example from the U.K., the financial implications of not being eligible for the emissions reduction target rebate would result in additional annual operational costs of approximately \$472,897. This figure was calculated assuming from January – March 2019 the €/MWh price was 5.83, while the April – December 2019 price was 8.47 €/MWh and Ball consumed an average of 4500 MWh each month. The calculation used assumed a conversion rate where 1 Euro = 1.1213 USD. Thus the final calculations is the following:  $(3 \times (4500 \times 5.83) + 9 \times (4500 \times 8.47)) \times 1.1213 = 472,897$ .

**Cost of response to risk**

455500

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

We monitor changes in regulation and support the forming of opinion based on our expertise. Our GHG emission reduction target, combined with energy efficiency measures in all our plants, reduces the risk of energy taxes. The 2019 projects associated with these energy efficiency measures took place in Waterford, Ireland and Milton Keynes, U.K. In both facilities we replaced the air compressor systems saving approximately 500 MT CO<sub>2</sub>e. The Milton Keynes facility also received a vacuum pump replacement and distribution pipework network resulting in an estimated 320 MT CO<sub>2</sub>e of annual emissions savings. In total, the three projects (two at Milton Keynes and one in Waterford), required an investment of \$455,500. With projects like this, we reduce the risk of future fuel/energy taxes and the impact of regulations since we are reducing our GHG emissions. Because energy costs are a significant cost factor for Ball, energy efficiency is being continuously improved at our plants and significant investments are made for energy projects that reduce our energy consumption. For example, in 2019 we invested over \$4 million in energy-related projects globally. We also invest in our energy engineers and other personnel to implement the projects that reduce our fuel/energy dependency; therefore, reduce the risk of the impact of increased fuel/energy taxes and regulations.

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

Yes

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

Opp1

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

Direct operations

**Opportunity type**

Products and services

**Primary climate-related opportunity driver**

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

**Primary potential financial impact**

Increased revenues resulting from increased demand for products and services

**Company-specific description**

Ball Aerospace builds complex satellites and spacecraft that simplify everyday tasks from weather prediction to providing to help us understand the complexities of the universe, especially for the National Aeronautics and Space Administration (NASA), National Oceanic and Atmospheric Administration (NOAA) and other organizations. Changes in climate-related regulation may lead to increased demand for Ball Aerospace's technologies. For example, Ball Aerospace advanced sensor technology on the Landsat Earth-observing satellite which observes land use and the interaction between human activity and natural events. In 2019 Ball also won a contract with MethaneSAT LLC to develop an advanced remote sensing instrument that will detect regional and point source methane emissions across the globe from space.

**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)**

&lt;Not Applicable&gt;

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

&lt;Not Applicable&gt;

**Explanation of financial impact figure**

As changes in regulation may require advanced measuring and monitoring technologies/ satellites, new regulation may create new business opportunities for Ball Aerospace to apply its expertise in space-based instruments and sensors as well as satellites. These business opportunities would lead to an increase in demand for our products; therefore revenue would significantly increase. Due to the challenges associated with projecting future contract values, for instance climate-related contracts must be available on the market and then Ball Aerospace must apply and win said contracts, we estimate potential revenue to be \$100,000,000 between 2020 and 2022. This potential revenue calculation considers current projects that have remaining periods of performance; however, Ball Aerospace has recently won two other opportunities that will be booked by the end of 2020.

**Cost to realize opportunity**

360000

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

We engage with our customers (NOAA, NASA, government agencies, etc.) by sponsoring roundtable discussions and industry working groups that address climate change opportunities and changes in regulation. Program reviews and top-to-top meetings aid climate change regulation dialogue. Leveraging leadership positions in trade associations such as Aerospace Industries Association and National Association of Manufacturers creates a platform for continuous dialogue with our customers. To estimate the potential costs to realize climate-related opportunities, we used the average salary of a business development manager at Ball Aerospace. Assuming an average annual salary of \$120,000 and three business development managers are dedicated to expanding Ball Aerospace's climate-related contracts, the total estimated opportunity cost would be \$360,000. Ball Aerospace is the mission prime contractor for the Suomi National Polar-orbiting Partnership (NPP) and Joint Polar Satellite System (JPSS-1) weather and environmental satellite systems. Suomi NPP and JPSS-1 provide critical observations for accurate weather forecasting, reliable severe storm outlooks and global measurements of atmospheric and oceanic conditions such as sea surface temperatures and ozone. Launched in 2017, JPSS-1 is the most advanced satellite NOAA has ever flown in a polar orbit, and is currently the agency's primary polar-orbiting satellite. Flying in the same orbit, Suomi NPP and JPSS-1 together deliver highly calibrated weather and environmental data into the hands of scientists, forecasters and first responders, ensuring our ability to protect lives and property as a Weather-Ready Nation.

**Comment**

Significant costs are attributed to staffing employees whose full-time positions are to monitor risks and opportunities with regards to changes in climate change-related regulation. In addition, considerable costs are allotted to sponsoring events, round tables and other discussions with our customers, trade associations and other working groups to maintain and leverage open dialogue.

**Identifier**

Opp2

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

Please select

**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**

As sustainability and climate change become increasingly important to our customers, we want to be in a good position to be their sustainable supplier of choice. Our robust management systems, our long history of continuous improvement on energy efficiency and GHG emission reductions, our experience with LCAs and our focus on customer needs help further improve our reputation as a responsible partner. Furthermore, Ball has committed to reducing absolute direct emissions 55% and reducing value chain emissions 16% by 2030 from a 2017 baseline. Should consumer-buying behavior increasingly shift towards the use of environmentally friendly products, we may benefit from that trend due to the unique sustainability credentials of metal packaging. Metal packaging is the most recycled packaging material in many markets, has a high scrap value, is lightweight, is an abundant resource, has no loss of inherent material properties during recycling, has a long shelf life, and enhances food safety. If consumers use our products more, this could increase our sales as demand for our products grows; therefore, increase our revenue.

**Time horizon**

Short-term

**Likelihood**

Likely

**Magnitude of impact**

Medium

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

Yes, a single figure estimate

**Potential financial impact figure (currency)**

4840500

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

<Not Applicable>

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

<Not Applicable>

**Explanation of financial impact figure**

Selling more of our products due to their unique sustainability credentials would significantly increase our revenue. During 2019 we saw increased demand for canned water as a result of increased awareness around the limited real recycling of plastic water bottles. In 2019 several water brands began trials for selling their water products in aluminum cans and bottles in an effort to reduce plastic use. In 2019 Ever & Ever introduced aluminum water bottles as a sustainable alternative to single-use plastic water bottles. If the canned water market were to represent 0.05% of Ball's Global Beverage business in the medium-term, the potential financial impact would be  $0.0005 * \$9,681$  million (Ball's 2019 net revenue from its Global Beverage Packaging business).

**Cost to realize opportunity**

50000

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

Ball is communicating the benefits of metal packaging to several audiences and through various communication channels. Because innovation is critical to growing our business and assisting our customers in growing theirs, we work closely with customers and suppliers to identify and develop ideas to improve our products. We evaluate innovations through multiple lenses, including resource requirements, costs and the impact of product innovations on the recycling process. Sustainability has become increasingly important to our customers and consumers over the past decade. We believe this development favors lightweight, durable, infinitely recyclable aluminum and steel packaging. Furthermore, throughout the value chain, we significantly reduce costs, energy use and emissions by using less metal in our containers. In 2019 Ball conducted a peer reviewed comparative Life Cycle Assessment (LCA) for beverage packaging across the United States, Europe and Brazil. Throughout 2019 and into 2020 we communicated the initial findings of this LCA to several stakeholders. We estimate the cost of supporting the peer reviewed LCA internally to be \$50,000. Four of Ball's sustainability directors across the globe committed up to 10% of their time in 2019 to supporting the development and publication of the LCA. Assuming each of the four directors earned \$125,000 per year, and 10% of their time was committed to the LCA, the internal cost of labor to support the LCA can be estimated as \$50,000 ( $\$125,000 * 4 * 0.1$ ). We know from these LCAs that optimizing the weight of containers, switching electricity use in can manufacturing to renewable energy, and further increasing recycling rates are important levers to reduce the environmental footprint of our products and align with customer and consumer preferences.

**Comment**

Total costs are attributed to labor, equipment, research and development, communication and marketing.

**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**

Increased revenues resulting from increased demand for products and services

**Company-specific description**

Through the purchases of renewable energy in North America and Europe during 2019, Ball is able to dramatically reduce the Scope 1 and Scope 2 footprint of its products, potentially resulting in increased demand for low carbon products from existing and new customers. Ball's customers are increasingly focused on reducing upstream carbon emissions in their value chains. Through strategic procurement and innovation practices, Ball may be able to differentiate its low-carbon products from competitors and meet increasing customer demand.

**Time horizon**

Short-term

**Likelihood**

Likely

**Magnitude of impact**

Medium

**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)**

1672000000

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

1760000000

**Explanation of financial impact figure**

Selling more of our products due to their enhanced sustainability credentials from the use of lower-emission sources of energy could significantly increase our revenue. Although this is listed as the primary impact driver, using lower-emissions sources or renewable sources of energy would reduce our exposure to future fossil fuel price increases and cost of carbon. Costs of renewable sources of energy have continued to drop and energy is one of Ball's top five operating costs; therefore, if Ball were to secure a long-term low price for low-emission energy, we could also see a large financial impact in the form of reduction of our energy costs. To calculate the estimated range of financial impacts as a result of improving the sustainability credentials of our beverage cans, we used two potential growth volume pathways. A 1% increase in demand would mean producing an additional 19-20 billion cans. At an estimated cost of 0.088 dollars/can, the potential financial opportunity is approximately \$1,672,000,000 (\$0.088\*19,000,000,000) and \$1,760,000,000 (\$0.088\*20,000,000,000) respectively.

**Cost to realize opportunity**

0

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

Our strategy to realize this opportunity is to continue to pursue renewable energy opportunities around the different regions in which we operate. In the reporting period, Ball negotiated and signed two Virtual Power Purchase Agreements (VPPAs), one wind and one solar, for 388 MW of new renewable energy to address 100% of Ball's North American electricity load utilized in its corporate, packaging and aerospace operations by the end of 2021. In late 2019, we continued to seek renewable energy opportunities in Europe. Ball has now also signed two long-term virtual power purchase agreements to address our European electricity load, one in Spain and one in Sweden. These European VPPAs will cover the electricity load of approximately 10 beverage packaging plants. Together, these projects will allow Ball to reduce its global Scope 2 greenhouse gas emissions by roughly 64%. This reduction in Scope 2 emissions will help Ball achieve our Science Based Targets and support our existing and future customers value chain GHG emission targets. The VPPA's referenced are long-term contracts between Ball and our renewable energy partners in which we agree to pay a long-term fixed price for the generated energy and environmental attributes generated from the wind and solar assets. Each VPPA is structured so that the agreed upon long-term fixed price is regularly settled against the market price in a contract for differences model. Because this market price of energy is fluctuating and because these are long-term contracts, in any single year, Ball could realize net gains or net costs on these contracts individually or in aggregate. Ball reports \$0 cost to realize opportunity because net gains versus net costs are unknown at this time.

**Comment**

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**C3. Business Strategy**

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**C3.1**

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

Yes

**C3.1a**

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**(C3.1a) 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

**C3.1c**

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**(C3.1c) Why does your organization not use climate-related scenario analysis to inform its strategy?**

Ball currently considers the probability of identified risks and opportunities; however, Ball does not currently systematically use climate-related scenario analysis to inform our business strategy. Ball anticipates using formal climate-related scenario analysis to inform our business strategy in the next two years. Ball plans to organize a strategic team of appropriate internal stakeholders to examine how to best approach climate-related scenario analysis in regards to Ball's different business units and Ball Corporation overall. Because Ball considers all identified climate-related risk and opportunities in its business strategy development, Ball plans to approach the potential use of climate-related scenario analysis thoughtfully. Ball believes it may take longer than two years to thoughtfully execute on a meaningful climate-related scenario analysis that will have a robust governance and management process to it. Because climate-related scenario analysis includes a significant amount of assumptions that will continue to change, a successful climate-related scenario analysis cannot be performed one time to inform a long-term business strategy. A proper governance process around the formation and update of climate-related scenarios, as well as dedicated resources to the scenario development process in the current and future state of Ball is necessary to successful evaluation and proper incorporation of a climate-related scenario analysis. Ball will be dedicating resources and establishing proper governance processes to conduct climate-related scenario analysis in the next two years.

**C3.1d**

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**(C3.1d) 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	Ball's strategy for our products and services has been influenced by climate-related risks and opportunities. In the reporting year Ball's strategy for our products and services has made progress towards a climate-related opportunity as customers and consumers demand more low carbon and circular products. In 2019, communities across the globe increasingly acknowledged the environmental harm caused by single-use plastic and increased demand for highly recyclable aluminum containers. As a result, our products and services strategy is to act on this climate-related opportunity by developing aluminum packaging solutions to address the demand for more sustainable and low carbon packaging in the short-term, long-term, and medium-term.
Supply chain and/or value chain	Yes	Ball's strategy for our supply chain and value chain has been influenced by climate-related risks and opportunities. In the reporting year Ball's supply chain and value chain strategy has made progress in addressing climate-related risks as our beverage can customers demand low carbon and circular packaging. By continuing to decrease the embedded carbon of aluminum can production, Ball will continue to be a leader within the packaging industry in the transition to a circular and low-carbon economy. Therefore to realize this opportunity and continue to reduce the embedded carbon of our packaging products, Ball has expanded its supply chain engagement strategy through the Aluminum Stewardship Initiative (ASI). Several of the criteria within the ASI Standard are climate-related, but a significant focus is on greenhouse gas emissions reductions. In the short-term, Ball is encouraging its aluminum suppliers to pursue ASI membership and certification. In the medium-term and long-term Ball aims to incorporate ASI certification as a requirement for renewing/new supplier contracts. The most substantial strategic decision made in this area to date that has been influenced by the climate-related risks and opportunities was the decision to certify all 23 of our beverage can plants in the Europe, Middle East and Africa (EMEA) region to the ASI standards. This achievement addresses a climate-related opportunity. As the first beverage can manufacturer to achieve this distinction, we are leveraging our purchasing power to reduce the carbon footprint of aluminum can sheet and creating opportunities for climate-related collaboration within our supply chain. Now, we are working towards ASI certification for all of our packaging businesses by the end of 2022.
Investment in R&D	Yes	Ball's strategy for our Investment in R&D has been influenced by climate-related risks and opportunities. In 2011, Ball introduced the company's Drive for 10 vision, a strategy for continued, long-term value creation. Sustainability is an integral part of this vision. Improving processes through efficiency measures, investing in R&D, and thereby minimizing environmental impacts and related risks, are part of our short-term, medium-term, and long-term decisions and actions. Based on opportunities for resource efficiency and lowering the carbon footprint of our products, the most substantial strategic decision has been to invest in R&D for further lightweighting of our aluminum aerosol packaging. ReAl® is a breakthrough technology in the aerosol industry developed by Ball over a period of five years, demonstrating our global and cross-business innovation capabilities. The proprietary aluminum alloy developed by Ball metallurgists and engineers exhibits increased strength and enables Ball to significantly lightweight aluminum aerosol cans. In fact, our ReAl can is up to 20% lighter than standard aerosol cans of the same size. And our engineering and innovation teams continue to adjust alloy composition to achieve even greater economic and environmental savings.
Operations	Yes	Ball's strategy for our operations been influenced by climate-related risks and opportunities. To increase the resilience of our operations and decrease climate-related risks during the transition to a low carbon economy, Ball has incorporated significant emissions reductions into its operational strategy. In the short-term, Ball's manufacturing operations set 2 year energy efficiency goals, while in the long-term Ball has committed to a 1.5°C science-based target (SBT) committing to an absolute 55% reduction in Scope 1 and 2 emissions by 2030. The most substantial strategic decision made in this area to date that has been influenced by the climate-related risks and opportunities was the decision to expand Ball's renewable energy portfolio. In early 2019, Ball negotiated and signed two Virtual Power Purchase Agreements (VPPAs) to address 100% of Ball's North American electricity load utilized in its corporate, packaging and aerospace operations by the end of 2021. In late 2019, we continued to seek renewable energy opportunities in Europe. Ball has now also signed two long-term virtual power purchase agreements to address our European electricity load, one in Spain and one in Sweden. These European VPPAs will cover the electricity load of approximately 10 beverage packaging plants. Together, these projects will help to mitigate risks and seize opportunities related to the transition to a low carbon economy, reducing the carbon footprint of our products and enhancing our ability to offer low carbon products to our customers.

**C3.1e**

**(C3.1e) 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	Direct costs Capital expenditures	Physical risks associated with extreme weather has impacted our direct costs. In 2018, Ball experienced significant spikes in freight rates and out-of-pattern freight across our Southern and lower Atlantic US plant network. We saw similar trends in South America regarding increasingly volatile costs of freight. To reduce freight rates and manage transportation routes during climate-related events, Ball purchased its own freight fleet for its Brazilian market in 2019. The time horizon of this financial planning for direct operations is short-term. Transitional risks around rising energy costs, exposure to future carbon pricing regulation, and shifts in consumer preferences for low carbon products have led Ball to invest in energy efficiency measures. For example, Ball invested \$4 million in energy efficiency projects in 2019. These investments in energy efficiency measures do not include the significant capital expenditure related to Balls renewable energy portfolio. The time horizon of this financial planning for capital expenditures is long-term.

**C3.1f**

**(C3.1f) Provide any additional information on how climate-related risks and opportunities have influenced your strategy and financial planning (optional).**

Our business strategy is influenced by climate-related issues. Ball introduced the company's Drive for 10 vision as a strategy for continued, long-term value creation. Sustainability is an integral part of this vision and improving our sustainability performance has continued to drive long-term value creation through low carbon and circular packaging products. Improving processes through efficiency measures, and thereby minimizing environmental impacts and related risks, are part of our daily decisions and actions. For each corporate and operational sustainability priority, we defined how our efforts help achieve our Drive for 10 vision. For example, regarding energy and climate change, our Drive for 10 Strategy states: "By implementing energy management systems and leveraging our know how and technological expertise, we continue to increase energy efficiency in our processes. This maximizes the value of our operations and reduces our corporate carbon footprint." Additionally, Ball is on a mission to make the can the most sustainable package relative to other substrates, environmentally and economically. In order to achieve this, we must not only reduce the environmental impact of our packaging but also address climate-related economic risks. We see this as a key driver in our overall growth strategy. Because of this, climate-related and other sustainability issues are factored into daily business decisions to support this key business strategy.

Key to enhancing the sustainability credentials of our packaging is reducing the environmental impact, specifically greenhouse gas emissions. Therefore, our business strategy is linked to our recently approved Science-Based Targets. By 2030, we will reduce our absolute Scope 1 and 2 GHG emissions by 55% against a 2017 baseline. In addition, Ball strives to reduce GHG emissions across the value chain—from mining, refining, smelting, casting and rolling, to Ball's manufacturing, logistics, and end-of-life recycling—by 16% over the same period.

## C4. Targets and performance

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### C4.1

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

Absolute target

#### 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**

2019

**Target coverage**

Company-wide

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

Scope 1+2 (market-based)

*Absolute Scope 1 + 2 (Market-Based) Science-Based Target*

**Base year**

2017

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

1167834

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

100

**Target year**

2030

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

55

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

525525.3

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

1182207

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

-2.23770906419297

**Target status in reporting year**

Underway

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

Yes, this target has been approved as science-based by the Science-Based Targets initiative

**Please explain (including target coverage)**

This absolute target, to reduce Ball's absolute Scope 1 and Scope 2 GHG emissions by 55% against a 2017 baseline, is part of Ball's approved Science-Based Targets. Between 2017 and 2019 Ball has reduced its combined Scope 1 and Scope 2 emissions by 1%. However, we expect to make considerable progress on this target in the next several years based on the recent signing of two Virtual Power Purchase Agreements for 388 MW of combined wind and solar capacity that will begin producing renewable energy in 2020 and 2021.

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**Target reference number**

Abs 2

**Year target was set**

2019

**Target coverage**

Company-wide

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

Scope 3 (upstream & downstream)

**Base year**

2017

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

8489022

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

100

**Target year**

---

2030

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

16

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

7130778.48

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

8636045

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

-10.8244948593607

**Target status in reporting year**

Underway

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

Yes, this target has been approved as science-based by the Science-Based Targets initiative

**Please explain (including target coverage)**

This absolute target, to reduce Ball's absolute Scope 3 GHG emissions by 16% against a 2017 baseline, is part of Ball's approved Science-Based Targets. Because beverage can production increased nearly 3% from 2018 to 2019, Scope 3 emissions increased as well.

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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**

2016

**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	MWh
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**Target denominator (intensity targets only)**

Other, please specify (Ball uses a Carbon Intensity Index (CII), calculated using the total GHG emissions of each businesses, normalized by a business-specific denominator. Normalization factors are weighted based on the production/sales intensities in the base year. )

**Base year**

2016

**Figure or percentage in base year**

90.48

**Target year**

2020

**Figure or percentage in target year**

85.96

**Figure or percentage in reporting year**

85.55

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

109.070796460177

**Target status in reporting year**

Underway

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

This target is separate for our committed emissions reduction targets, however setting energy efficiency targets contributes to our emissions reduction target by reducing energy usage (Scope 1 and Scope 2 emissions) within our direct operations.

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

No, it's not part of an overarching initiative

**Please explain (including target coverage)**

This target is company-wide. This target applied to calendar years, not financial years.

**C4.3**

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

Yes

**C4.3a**

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

	Number of initiatives	Total estimated annual CO2e savings in metric tonnes CO2e (only for rows marked *)
Under investigation	0	0
To be implemented*	2	562019
Implementation commenced*	21	3522
Implemented*	40	15438
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	Compressed air
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**Estimated annual CO2e savings (metric tonnes CO2e)**

801

**Scope(s)**

Scope 2 (location-based)

**Voluntary/Mandatory**

Voluntary

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

22286

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

34781

**Payback period**

1-3 years

**Estimated lifetime of the initiative**

11-15 years

**Comment**

**Initiative category & Initiative type**

Energy efficiency in buildings	Lighting
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**Estimated annual CO2e savings (metric tonnes CO2e)**

2342

**Scope(s)**

Scope 2 (location-based)

**Voluntary/Mandatory**

Voluntary

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

441241

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

1455184

**Payback period**

1-3 years

**Estimated lifetime of the initiative**

11-15 years

**Comment**

**Initiative category & Initiative type**

Energy efficiency in production processes	Machine/equipment replacement
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**Estimated annual CO2e savings (metric tonnes CO2e)**

2183

**Scope(s)**

Scope 2 (location-based)

**Voluntary/Mandatory**

Voluntary

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

599665

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

935870

**Payback period**

1-3 years

**Estimated lifetime of the initiative**

11-15 years

**Comment**

**Initiative category & Initiative type**

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

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

992

**Scope(s)**

Scope 1

**Voluntary/Mandatory**

Voluntary

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

9143

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

14269

**Payback period**

1-3 years

**Estimated lifetime of the initiative**

11-15 years

**Comment**

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**Initiative category & Initiative type**

Energy efficiency in production processes	Motors and drives
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**Estimated annual CO2e savings (metric tonnes CO2e)**

1162

**Scope(s)**

Scope 2 (location-based)

**Voluntary/Mandatory**

Voluntary

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

397225

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

745668

**Payback period**

1-3 years

**Estimated lifetime of the initiative**

11-15 years

**Comment**

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**Initiative category & Initiative type**

Energy efficiency in production processes	Process optimization
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**Estimated annual CO2e savings (metric tonnes CO2e)**

5042

**Scope(s)**

Scope 2 (location-based)

**Voluntary/Mandatory**

Voluntary

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

290571

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

757620

**Payback period**

1-3 years

**Estimated lifetime of the initiative**

11-15 years

**Comment**

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**Initiative category & Initiative type**

Company policy or behavioral change	Resource efficiency
-------------------------------------	---------------------

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

2354

**Scope(s)**

Scope 2 (location-based)

**Voluntary/Mandatory**

Voluntary

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

13714

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

21404

**Payback period**

1-3 years

**Estimated lifetime of the initiative**

11-15 years

**Comment**

---

**Initiative category & Initiative type**

Energy efficiency in production processes	Waste heat recovery
---	---------------------

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

563

**Scope(s)**

Scope 1

**Voluntary/Mandatory**

Voluntary

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

118281

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

222000

**Payback period**

1-3 years

**Estimated lifetime of the initiative**

11-15 years

**Comment**

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C4.3c

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

Method	Comment
Financial optimization calculations	We recognize that we have many opportunities to continue to cost effectively improve energy efficiency. Therefore, capital investment is allocated each year to energy projects. Within our Authorization For Expenditure process, sustainability metrics are taken into account (e.g. energy use and water) to better identify opportunities to meet our sustainability goals. We also maintain a database of all capital and non-capital energy efficiency projects on a plant-by-plant basis. For each project, we describe costs, return on investment, internal rate of return, expected energy savings and potential rebates. After we standardized the respective form in 2011, the system increased transparency across all divisions, allowing for better exchange of information and better decision-making when it comes to prioritizing energy efficiency capital investments. In addition, we also maintain an energy management database online, that can be accessed by all employees. These resources include, for example, best practices, low cost energy efficiency measures and performance benchmarks. Each year, best practices are being identified, and if deemed effective, we work to implement them in other plants where applicable.
Partnering with governments on technology development	Ball is a member of the U.S. Department of Energy's "Better Buildings, Better Plants" and the Environmental Protection Agency's "Energy Star" program. Our membership provides tools and technical resources to enhance our efforts and allow us to learn from other organizations.
Partnering with governments on technology development	Ball Aerospace was selected by NASA to lead a technology demonstration of a high performance "green" propellant alternative to the highly toxic fuel hydrazine. With this program, NASA opened a new era of innovative and nontoxic green fuels that are less harmful to our environment, have fewer operational hazards and decrease the complexity and cost of launch processing. Ball is also part of a team selected to build the first space-based instrument to monitor major air pollutants across the North American continent for NASA's Tropospheric Emissions: Monitoring of Pollution (TEMPO) mission. TEMPO will collect data that will advance air quality research on how air pollution affects climate change and air quality on a continental scale. Also, Ball is responsible for the creation The Ozone Mapping and Profiler Suite that measures atmospheric ozone and how ozone concentration varies with altitude. The collection of this data contributes to fulfilling the U.S. treaty obligation to monitor the ozone depletion for the Montreal Protocol to ensure there are no gaps in ozone coverage. It also extends the 30-plus year total-ozone and ozone-profile records that are used by ozone-assessment researchers and policy makers to track the health of the ozone layer.
Dedicated budget for energy efficiency	We maintain a database of all capital and non-capital energy efficiency projects on a plant-by-plant basis. For each project, we describe costs, return on investment, internal rate of return, expected energy savings and potential rebates. In 2009, we established a process to ensure we maintain a dedicated budget for energy efficiency for capital projects. While at the beginning of the year many projects already have designated funding from this budget, the process remains dynamic so projects with the best return on both investment and energy efficiency continue to get put at the top of the list. A significant amount of all manufacturing cost saving capital is dedicated to energy reduction activities. All facilities work with central engineering functions to implement energy efficiency projects and reduce impacts.
Employee engagement	Employees are encouraged to provide feedback and recommendations to improve energy efficiency. Posters, energy awareness month, ideas management systems, employee intranet, employee newsletters, sustainability fairs and other communication tools contribute to our continuous improvements on energy and GHG emissions. We have become more systematic in our sustainability data collection process, and we have significantly increased transparency and awareness at the plant level. Plants can run trend reports providing visibility into issues that need addressing. In addition, each business division has a risk management coordinator and executives at upper managerial level who are designated as being responsible for risk management. These divisional teams meet every month to discuss the results of facility energy reports and what projects need to be put into place to further increase energy efficiency and reduce GHG emissions. These energy teams depend on the engineering teams, EHS and corporate sustainability to verify data and provide ongoing energy performance data, including trend analysis. Additionally, meetings are scheduled with divisional presidents bi-weekly to analyze current energy issues, opportunities, and risks and prioritization of projects is discussed. At Ball, the key to saving energy is our employees. We expect focused strategies in our operations, and timely maintenance and repairs to existing equipment. In addition, we foster a culture of efficient behaviors, encourage and reward innovative ideas, as well as expect each employee to behave like an owner. Our employees have access to various tools such as best practices databases that are product and division specific, as well as opportunity databases that highlight energy reduction ideas for items such as boilers, HVAC, lighting and ovens. Lastly, plant energy goals are posted on an internal website to not only drive accountability but create healthy competition between facilities regarding process improvements and efficiencies.
Compliance with regulatory requirements/standards	Regulations in some countries require a certain standard regarding energy efficiency (e.g. for new buildings). These requirements/standards are the minimum standard that is met by Ball. However, in the majority of cases, we go beyond what is required by law. Both new and probable regulations are accounted for when capital projects are evaluated.
Internal incentives/recognition programs	Annually, Ball recognizes employees at one manufacturing plant in each division of Ball's businesses with the R. David Hoover Sustainability Award. The annual award recognizes one plant in each division of Ball's businesses for year-over-year and longer-term operational improvements in areas such as energy and water efficiency, as well as their role as product stewards, community ambassadors and team players. The most successful facility in each division receives the award. In addition to the pride that employees of the winning plants take from winning the award, they also receive a trophy that is awarded by senior management during a facility celebration and plant visit. Overall, this award drives process improvements across the business, especially regarding energy efficiency, as it has encouraged best practice sharing, collaboration, transparency across the business divisions, and overall employee engagement and commitment to our operational and sustainability priorities. Since several award criteria are directly linked to climate change, it clearly incentivizes all employees to meet improvement goals. This award has been in place since 2011 in honor of the company's former chairman, president and CEO, who was a key driver in the development of Ball's formal sustainability program.
Other (Global energy strategy)	Ball has developed a global energy strategy to ensure that we significantly and cost effectively reduce our energy consumption and related GHG emissions. Among other aspects, the strategy requires each division to track, report and develop goals regarding energy efficiency. Divisions have to provide capital funding for energy efficiency projects. It also requires the consideration of lifetime energy costs of the respective equipment that when making investment decisions. The strategy also asks each division to develop and maintain an inventory of energy efficiency opportunities (both capital and non-capital).

**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**

By recycling metals, up to 95% of the energy (and related GHG emissions) are avoided that would have been required (emitted) to produce the same amount of primary metal. Through packaging collection and recycling programs at the national and regional levels, we support efficient collection and recycling infrastructure and educate consumers about the importance of recycling and its contribution to climate protection. Examples include "Every Can Counts" in ten European countries, The Recycling Partnership in the U.S., and the "It's Time to Recycle" campaign in Brazil. Metal packaging is the most recycled food and beverage packaging in the world. The global recycling rate for aluminum beverage cans is 69% and 68% for steel cans. In many countries, recycling rates of metal cans are above 90%. Cans are easy to transport and our customers can transport more product - producing less emissions, due to the high cube utilization and light weight of cans. Because cans do not need to be refrigerated or frozen, this reduces the amount of GHG emissions for customers to enjoy our product. According to European Aluminium, 9.8 metric tons of CO2 are saved for every ton of recycled aluminum. In the case of steel, 1.9 tons are saved for every ton of steel recycled (according to the International Iron and Steel Institute). Based on a simplified calculation, we could estimate that by recycling all of our input metals at Ball (post-industrial and post-consumer) at the global rates mentioned above, more than 12 million tons of CO2 emissions are saved annually.

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

Low-carbon product

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

Other, please specify (Internal avoided emissions calculations)

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

84

**% of total portfolio value**

<Not Applicable>

**Asset classes/ product types**

<Not Applicable>

**Comment**

Ball continuously invests in optimizing the weight of all of our containers. 84% of Ball's 2019 net sales were derived in our metal packaging businesses. Additionally, in 2020 Ball published a peer-reviewed comparative LCA for aluminum beverage cans, PET and glass bottles, as well as beverage cartons in Brazil, Europe and the United States. One of the key findings was that recycling is a key factor when it comes to the sustainability profile of all substrates. The full LCA report can be found here: <https://www.ball.com/realcircularity>

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**Level of aggregation**

Group of products

**Description of product/Group of products**

Ball Aerospace helped develop a high performance "green" propellant alternative to the toxic fuel hydrazine. With this alternative, NASA opened a new era of nontoxic green fuels. Ball is part of a team selected to build the first space-based instrument to monitor major air pollutants across the North American continent for NASA's Tropospheric Emissions: Monitoring of Pollution mission that will collect data to advance air quality research on how air pollution affects climate change and air quality on a continental scale. Ball is responsible for the creation of The Ozone Mapping and Profiler Suite that measures atmospheric ozone and how ozone concentration varies with altitude. Collection of this data contributes to fulfilling the U.S. treaty obligation to monitor the ozone depletion for the Montreal Protocol. It extends the 30-plus year totalozone and ozone-profile records that are used by ozone- assessment researchers and policy makers to track the health of the ozone layer.

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

Low-carbon product

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

Other, please specify (Internal avoided emissions calculations)

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

13

**% of total portfolio value**

<Not Applicable>

**Asset classes/ product types**

<Not Applicable>

**Comment**

13% of Ball's 2019 net sales were derived in our aerospace business.

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**C5. Emissions methodology**

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**C5.1**

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

**Scope 1**

**Base year start**

January 1 2010

**Base year end**

December 31 2010

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

385954

**Comment**

Ball annually updates historical environmental performance data as necessary if updated emission factors or more accurate activity data become available to ensure "like with like" comparisons over time.

**Scope 2 (location-based)**

**Base year start**

January 1 2010

**Base year end**

December 31 2010

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

995558

**Comment**

Ball annually updates historical environmental performance data as necessary if updated emission factors or more accurate activity data become available to ensure "like with like" comparisons over time.

**Scope 2 (market-based)**

**Base year start**

January 1 2010

**Base year end**

December 31 2010

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

993417

**Comment**

Ball annually updates historical environmental performance data as necessary if updated emission factors or more accurate activity data become available to ensure "like with like" comparisons over time.

**C5.2**

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

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

**C6. Emissions data**

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**C6.1**

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**(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)**

434670

**Start date**

<Not Applicable>

**End date**

<Not Applicable>

**Comment**

**C6.2**

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**(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**

Ball will continue to collect market-based emission factors where available in order to strategically procure our electricity supply based on cost and efforts to achieve our absolute and intensity Science-Based GHG Target.

**C6.3**

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

**Reporting year**

**Scope 2, location-based**

806232

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

808272

**Start date**

<Not Applicable>

**End date**

<Not Applicable>

**Comment**

**C6.4**

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**(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**

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**(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**

7372695

**Emissions calculation methodology**

Ball calculates Scope 3 emissions from metal suppliers using primary data from suppliers including production volumes, geographic locations, data to calculate supplier scope 1 and scope 2 emissions, and origins of the metal, among other variables. Ball uses the EU's circular footprint formula to account for recycling impacts and the data considers the recyclate used by the producer. In 2019, Ball used a 20:80 (recycled content versus recycling rate) allocation of recycling credits compared to a 0:100 allocation of recycling credits in previous reporting years. Average emission factors for primary aluminum and steel are calculated by adjusting the average grid mix impact. If no specific emissions factor exists for specified tonnes of purchased metal from a supplier/country/site/metal, then a default figure for that country is used. Just under half of the purchased metal volume used in these calculations reflect the volume of metal put into production during the reporting year, while the remaining half are based off of actual purchased metal volumes. Other purchased goods includes a subset of other materials with large volumes and that cause relevant CO2e emissions, including compounds, solvents, washer chemicals, and gear lubes and oils. Other purchased goods represent 6.5% of CO2e emissions in the purchased goods and services category. We summarized the annual global purchases of these materials and multiplied them with industry average emission factors from multiple sources, including the ecoinvent database.

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

95

**Please explain**

From our extensive experience with life cycle assessments, we know that more than 79% of our scope 3 emissions derive from the production of aluminum can sheet. CO2e emissions from metal production highly correlate with the recycling rate of the respective material in the respective country or region. Based on an average European aluminum beverage can recycling rate of 74.5% (2017), for example, the ratio of CO2e emissions from metal production and can manufacturing (in Europe) is roughly 4:1. That is why, in addition to our own efforts to improve energy efficiency in our plants ([www.ball.com/energy](http://www.ball.com/energy)), we are cooperating with our suppliers and other partners to better understand their processes and their own scope 1 and scope 2 emission reduction opportunities ([www.ball.com/life-cycle](http://www.ball.com/life-cycle)).

## Capital goods

### Evaluation status

Relevant, calculated

### Metric tonnes CO<sub>2</sub>e

228299

### Emissions calculation methodology

Emissions from capital goods are calculated using environment extended economic input-output (EEIO) analysis, and financial spend data. This approach uses the OPEN IO database originally developed by the University of Arkansas. The analysis is based on spend and GHG emission factors, calculated per US dollar of economic value in the economy. The IO database has a collection of economic input-output emission factors for each sector of the economy. All purchases bought are allocated to a specific sector in the economy, which is associated with a specific EEIO factor. This sector specific emission factor is applied to Ball's spend in that sector.

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

#### Please explain

Emissions from Capital Goods are calculated by examining the capital expenditure during the reporting year from material projects (>\$5 million) completed during the reporting year. Material projects represent 51.5% of the capital expenditure reported in our 10K.

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

### Evaluation status

Relevant, calculated

### Metric tonnes CO<sub>2</sub>e

238534

### Emissions calculation methodology

The upstream emissions for Ball's fuel and energy consumption are calculated from activity data used to calculate the scope 1 and 2 emissions. The scope 3 emission factor for different energy sources excludes the combustion of fuel but includes indirect emissions related to generation of energy, as well as any electricity transmission or distribution losses. The scope 3 emission factors are obtained from Defra's 2019 Conversion factors. All scope 3 electricity emission factors are country specific.

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

#### Please explain

## Upstream transportation and distribution

### Evaluation status

Relevant, calculated

### Metric tonnes CO<sub>2</sub>e

295718

### Emissions calculation methodology

The emissions from upstream transportation were calculated using actual 2019 data, including transportation distances for each region, covering truck, vessel, and train transport. The emissions factors North America were obtained from EPA's 2020 update of its "Emissions Factors for Greenhouse Gas Inventories," all other regions applied emissions factors from Defra's 2019 conversion factors. It is assumed that all goods obtained from suppliers were transported via a combination of sea, road and rail transport. The mass of inputs is obtained from the data collected for scope 3 category 1 (Purchased Goods and Services, where purchased metal is the sum of actual purchased metal volumes and volumes of metal put into production). The weight of the upstream transportation does not include the weight of aluminum coil pallets or separators.

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

#### Please explain

## Waste generated in operations

### Evaluation status

Relevant, calculated

### Metric tonnes CO<sub>2</sub>e

2051

### Emissions calculation methodology

Waste data is collected by all Ball plants globally and emissions are calculated using the weight of each waste treatment category (landfill, recycled/reused, and other disposal). The emissions factors are the following: 1) DEFRA's 2019 Conversion Factors; Waste disposal; Refuse > Commercial and industrial waste > Landfill (kgCO<sub>2</sub>e/ton) 2) Defra 2019 Conversion Factors; Waste disposal; Refuse > Commercial and industrial waste > Closed-loop (kgCO<sub>2</sub>e/ton) 3) Defra 2019 Conversion Factors; Waste disposal; Refuse > Commercial and industrial waste > Combustion (kgCO<sub>2</sub>e/ton)

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

#### Please explain

## Business travel

### Evaluation status

Relevant, calculated

### Metric tonnes CO<sub>2</sub>e

10095

### Emissions calculation methodology

CO<sub>2</sub>e emissions from business air travel are based on real activity data, taking into account transportation mileage. Air travel is based on data from sold tickets respectively passenger miles booked with Concur (North American and European employees). Data for Asia and South America is based on North American and European average emissions per employee. The emission factor used is dependent on class type (i.e. First class, Business class, Premium Economy or Economy) and type of flight for air travel (short-haul or long-haul).

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

#### Please explain

## Employee commuting

### Evaluation status

Relevant, calculated

### Metric tonnes CO2e

26526

### Emissions calculation methodology

It is assumed that the total number of working days per year in any given country is 220 days across all countries. The average distance travelled per day is either taken from research or assumed to be 30km per day and assumed to be one return journey per day per employee. The emission factor is calculated by assuming that there are five different transport modes used for employee commuting, each with a different emission factor. The same breakdown of transport modes is assumed across all countries and multiplied by the respective Defra emission factors to calculate an overall employee commuting emission factor for each country.

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

#### 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

In the reporting period, Ball had no upstream leased assets.

## Downstream transportation and distribution

### Evaluation status

Relevant, calculated

### Metric tonnes CO2e

94064

### Emissions calculation methodology

Emissions from downstream transportation and distribution are calculated using weights of products produced, average transport distances, and EPA 2020 and Defra 2019 emission factors, assuming that all transportation is done via road. The weights of products produced was determined by applying a scrap loss rate to the volume of metal purchased (as reported in scope 3 category 1, Purchased Goods and Services). Again, category 1 purchased metal is the sum of actual purchased metal volumes and volumes of metal put into production. The weight of the downstream transportation does not include the weight of wooden pallets, plastic pallets, or can sheet separators.

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

#### Please explain

## Processing of sold products

### Evaluation status

Relevant, calculated

### Metric tonnes CO2e

43688

### Emissions calculation methodology

The majority of products sold by Ball are completed products, such as cans which are then filled, but are not transformed into other products. One exception is slug manufacturing where Ball sells aluminum slugs to third parties that then impact extrude the slug into an aerosol can. In this case the customer is carrying out a conversion process which Ball does itself for other customers. Therefore the emissions arising from customer conversion can be extrapolated from average Ball emissions. Emissions from the processing of sold products takes into account the volume of product sold to customers who carry out these conversion processes themselves and the volumes are multiplied by average emission factors for Ball operations completing the same process.

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

#### Please explain

## 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

Because our packaging products do not require significant amounts of energy during the use phase, we do not consider related emissions in our inventory yet. For our aerospace products the majority of the energy required during the use phase of products is derived from solar power or nuclear batteries. Therefore, there are no relevant scope 3 emissions associated with these products while they are used. Any small emissions from re-positioning satellites are outside the earth's atmosphere.

## End of life treatment of sold products

### Evaluation status

Relevant, calculated

### Metric tonnes CO2e

0

### Emissions calculation methodology

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

#### Please explain

By recycling metals, up to 95% of the energy needed to produce virgin metal can be saved (and consequently, the related GHG emissions). That means by recycling our metal products, significant amounts of scope 3 emissions can be saved. That is why we cooperate with suppliers, customers and other stakeholders to increase recycling rates through numerous collection and recycling programs. Examples of programs that we support are described at [www.ball.com/recycling](http://www.ball.com/recycling).

## Downstream 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

This category is not applicable for Ball Corporation as we do not act as a lessee for any entity.

## 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

This category is not applicable for Ball Corporation as we do not own any franchises.

## Investments

### Evaluation status

Relevant, calculated

### Metric tonnes CO2e

324375

### Emissions calculation methodology

Ball's footprint is calculated using a control approach, which means: For operations controlled by Ball, 100% of the emissions are included in scope 1&2, and all other categories of scope 3 from these operations. For operations not controlled by Ball, the total value chain emissions (i.e. from all categories) are scaled by the percentage of the equity held by Ball, and disclosed in this investment category. As information disclosure from these minority holdings can be minimal, the approach taken is to where possible obtain the tonnes of production figure for the reporting period and where this is not possible to approximate the annual output based upon the number of production lines, by proxying extrapolating similar size Ball operated plants. The emissions per tonne used are the average of all Ball operations.

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

#### Please explain

## 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**

C6.7

**(C6.7) Are carbon dioxide emissions from biogenic carbon relevant to your organization?**  
Yes

C6.7a

**(C6.7a) Provide the emissions from biogenic carbon relevant to your organization in metric tons CO2.**

	CO2 emissions from biogenic carbon (metric tons CO2)	Comment
Row 1	5277	Our Fosite, Sweden beverage can manufacturing plant used 100% biogas in 2019.

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**  
71.37

**Metric numerator (Gross global combined Scope 1 and 2 emissions, metric tons CO2e)**  
124294126

**Metric denominator**  
Other, please specify (Ball uses a Carbon Intensity Index (CII), calculated using the total GHG emissions of each businesses, normalized by a business-specific denominator. Normalization factors are weighted based on the production/sales intensities in the base year)

**Metric denominator: Unit total**  
1741615.95

**Scope 2 figure used**  
Market-based

**% change from previous year**  
3.9

**Direction of change**  
Decreased

**Reason for change**  
The 3.9% decrease in Ball's Carbon Intensity Index (CII) between 2018 and 2019 was primarily driven by a combination of changes in production / sales in our various business units and energy efficiency measures resulting in a reduction of GHG emissions. Our Global Beverage Packaging business increased Scope 1 + Scope 2 emissions by 1.3% but increased their beverage can production by 4.9%. Scope 1 & Scope 2 emissions for our Aerosol and Aluminum Slug businesses decreased by 2.9% and 3.5% as production for both aerosol production and aluminum slug production decreased (0.6% and 8.7% respectively). Lastly, Ball Aerospace increased Scope 1 + Scope 2 emissions by 11.3% and increased sales by 23.7%. As mentioned in the description of Ball's Carbon Intensity Index, each businesses contribution to the 3.9% decrease in the CII between 2018 and 2019 is determined by weighting factors calculated in the base year (CO2e per production/sales unit). Changes in our global beverage packaging business have the most significant impact. As mentioned in C4.3(a) and (b), Ball completed a number of energy efficiency projects in the different business units that led to GHG emission reductions in all three business units.

C7. Emissions breakdowns

C7.1

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

## C7.1a

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

Greenhouse gas	Scope 1 emissions (metric tons of CO2e)	GWP Reference
CO2	431041	IPCC Fifth Assessment Report (AR5 – 100 year)
CH4	224	IPCC Fifth Assessment Report (AR5 – 100 year)
N2O	257	IPCC Fifth Assessment Report (AR5 – 100 year)
Other, please specify (R-410A)	743	IPCC Fifth Assessment Report (AR5 – 100 year)
Other, please specify (R-407C)	675	IPCC Fifth Assessment Report (AR5 – 100 year)
Other, please specify (R-404A)	908	IPCC Fifth Assessment Report (AR5 – 100 year)
Other, please specify (R-134)	229	IPCC Fifth Assessment Report (AR5 – 100 year)
Other, please specify (R-134A)	84	IPCC Fifth Assessment Report (AR5 – 100 year)
SF6	53	IPCC Fifth Assessment Report (AR5 – 100 year)
Other, please specify (PFC-14)	60	IPCC Fifth Assessment Report (AR5 – 100 year)
Other, please specify (HFC-4310)	395	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)
United States of America	187554
Brazil	44587
Canada	22009
France	21538
United Kingdom of Great Britain and Northern Ireland	14551
Mexico	17637
Russian Federation	18705
Czechia	8246
Germany	7389
Spain	12211
Sweden	5735
Switzerland	7626
Austria	5877
Argentina	5246
Italy	3795
Denmark	6611
Chile	4748
Serbia	8301
Saudi Arabia	3074
Finland	3779
Guatemala	5465
Turkey	4088
Egypt	4114
India	3214
Viet Nam	4625
Myanmar	521
Panama	2377
Poland	397
Ireland	228
China, Hong Kong Special Administrative Region	3
Netherlands	109
Paraguay	310

## C7.3

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

By business division

By activity

## C7.3a

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

Business division	Scope 1 emissions (metric ton CO2e)
Global Beverage Packaging	376802
Aerosol Packaging	48388
Ball Aerospace Technologies	9480

**C7.3c**

**(C7.3c) Break down your total gross global Scope 1 emissions by business activity.**

Activity	Scope 1 emissions (metric tons CO2e)
Stationary Combustion	382176
Fugitive Emissions	37514
Refrigerants	2639
Mobile Combustion	12341

**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)
United States of America <i>Our wind turbines at our Findlay facility produced 11,325 MWh of low carbon electricity for the plant in 2017.</i>	428908	440892	942042	0
Brazil	30451	30451	260514	0
Mexico	57902	57902	120972	0
Russian Federation	32522	32522	92564	0
United Kingdom of Great Britain and Northern Ireland	17486	13044	68432	0
France	4947	4270	71309	0
Spain <i>Ball strategically procures 100% renewable electricity at our La Selva, Spain beverage can manufacturing plant.</i>	20416	28	70493	70396
Sweden	562	11099	44261	0
Canada	613	613	44443	0
Germany	13190	9862	31508	0
Czechia	20849	21428	41551	0
Saudi Arabia	19796	19796	27869	0
Austria	6591	3485	40788	0
Switzerland	1243	4173	43017	0
Guatemala	11862	11862	37577	0
Denmark	5048	12809	33357	0
Serbia	26305	26297	33287	0
Chile	14105	14105	32296	0
Italy	5527	6756	16906	0
Egypt	11952	11952	27010	0
India	18560	18560	25688	0
Argentina	10336	10336	29367	0
Turkey	9647	9647	20846	0
Viet Nam	10835	10835	29968	0
Finland	1636	4477	15457	0
Poland	14329	15644	20108	0
Ireland <i>Ball strategically procures 100% renewable electricity at our Waterford, Ireland beverage end manufacturing plant.</i>	5188	0	13658	13658
Panama	2897	2897	15452	0
Myanmar	2478	2478	6868	0
China, Hong Kong Special Administrative Region	30	30	42	0
Netherlands	20	20	46	0
Paraguay	0	0	20	1

**C7.6**

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

- By business division
- By activity

**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)
Global Beverage Packaging	746917	750417
Aerosol Packaging	29995	29995
Ball Aerospace Technologies	29320	27859

**C7.6c**

**(C7.6c) Break down your total gross global Scope 2 emissions by business activity.**

Activity	Scope 2, location-based (metric tons CO2e)	Scope 2, market-based (metric tons CO2e)
Electricity	798217	800257
Steam	8014	8014

**C7.9**

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

Increased

**C7.9a**

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

	Change in emissions (metric tons CO2e)	Direction of change	Emissions value (percentage)	Please explain calculation
Change in renewable energy consumption	408	Decreased	0.03	In late 2015, Ball installed three 1.5 megawatt windmills at our Findlay, Ohio, plant. In 2019, these windmills produced 11,115 MWh of renewable energy, a decrease from 2018 when the windmills produced 10,652 MWh of renewable energy. Based on market based emission factors, this reduction in renewable energy production resulted in an increase of 408 MTCO2e. In 2018, our total Scope 1 and Scope 2 emissions were 1,226,470 MTCO2e, therefore we arrived at -0.03% through $(408/1,226,470) * 100 = -0.03$ (i.e. 0.03% decrease in emissions).
Other emissions reduction activities	15438	Decreased	1.3	Numerous energy efficiency projects at various plants were completed during 2019 and consolidation between several manufacturing plants drove efficiency in our production processes. The estimated decrease in GHG emissions from other emission reduction activities implemented in 2019 is 15,438 MTCO2e. In 2019, our total Scope 1 and Scope 2 emissions were 1,226,470 MTCO2e, therefore we arrived at 1.3% through $(15,438/1,226,470) * 100 = 1.3$ (i.e. 1.3% decrease in emissions).
Divestment	0	No change	0	Ball updated its' GHG inventory and historic data to reflect the divestiture of Argentina Tinplate and Chinese Beverage Packaging in 2019; therefore, our divestiture has no impact on the change in
Acquisitions	0	No change	0	Ball did not make any acquisitions in 2019
Mergers	0	No change	0	Ball did not make any mergers in 2019
Change in output	58744	Increased	4.8	Ball experienced production growth in our Global Beverage Packaging business and an increase in sales in our Aerospace business. There was a small decrease in production growth in our Aerosol Packaging business in 2019. Using 2018 emission intensities for each of our businesses from our Carbon Intensity Calculator multiplied by 2019 output (production / revenue), we estimate an increase in Scope 1 and Scope 2 emissions related to changes in output of 58,744 MTCO2e. In 2018, our total Scope 1 and Scope 2 emissions were 1,226,470 MTCO2e, therefore we arrived at 4.8% through $(58,744/1,226,470) * 100 = 4.8$ (i.e. 4.8% increase in emissions).
Change in methodology	0	No change	0	Ball did not make any changes to our methodology.
Change in boundary	0	No change	0	Ball did not make any changes to our boundary.
Change in physical operating conditions	0	No change	0	Ball did not have any changes in operating conditions.
Unidentified	0	No change	0	No unidentified changes.
Other	0	No change	0	No other changes.

**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	Yes
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)	29033	2105422	2134454
Consumption of purchased or acquired electricity	<Not Applicable>	0	2222339	2222339
Consumption of purchased or acquired heat	<Not Applicable>	<Not Applicable>	<Not Applicable>	<Not Applicable>
Consumption of purchased or acquired steam	<Not Applicable>	0	35374	35374
Consumption of purchased or acquired cooling	<Not Applicable>	<Not Applicable>	<Not Applicable>	<Not Applicable>
Consumption of self-generated non-fuel renewable energy	<Not Applicable>	11115	<Not Applicable>	11115
Total energy consumption	<Not Applicable>	40148	4363135	4403283

### 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	Yes
Consumption of fuel for the generation of heat	Yes
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	No

### C8.2c

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

**Fuels (excluding feedstocks)**

Natural Gas

**Heating value**

HHV (higher heating value)

**Total fuel MWh consumed by the organization**

2004938

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

0

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

2004938

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

&lt;Not Applicable&gt;

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

&lt;Not Applicable&gt;

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

&lt;Not Applicable&gt;

**Emission factor**

53.32

**Unit**

kg CO2e per million Btu

**Emissions factor source**

"Industrial (HHV). 2006 IPCC Guidelines for National Greenhouse Gas Inventories. Volume 2 - Energy. Table 2.3 Default Emission Factors for Stationary Combustion in Manufacturing Industries and Construction, Table 2.4 Default Emission Factors for Stationary Combustion in The Commercial/Institutional - [http://www.ipccnggip.iges.or.jp/public/2006gl/pdf/2\\_Volume2/V2\\_2\\_Ch2\\_Stationary\\_Combustion.pdf](http://www.ipccnggip.iges.or.jp/public/2006gl/pdf/2_Volume2/V2_2_Ch2_Stationary_Combustion.pdf)"

**Comment**

---

**Fuels (excluding feedstocks)**

Propane Gas

**Heating value**

HHV (higher heating value)

**Total fuel MWh consumed by the organization**

77261

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

0

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

77261

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

&lt;Not Applicable&gt;

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

&lt;Not Applicable&gt;

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

&lt;Not Applicable&gt;

**Emission factor**

64.59

**Unit**

kg CO2e per million Btu

**Emissions factor source**

"Industrial (HHV). 2006 IPCC Guidelines for National Greenhouse Gas Inventories. Volume 2 - Energy. Table 2.3 Default Emission Factors for Stationary Combustion in Manufacturing Industries and Construction, Table 2.4 Default Emission Factors for Stationary Combustion in The Commercial/Institutional - [http://www.ipccnggip.iges.or.jp/public/2006gl/pdf/2\\_Volume2/V2\\_2\\_Ch2\\_Stationary\\_Combustion.pdf](http://www.ipccnggip.iges.or.jp/public/2006gl/pdf/2_Volume2/V2_2_Ch2_Stationary_Combustion.pdf)"

**Comment**

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**Fuels (excluding feedstocks)**

Diesel

**Heating value**

HHV (higher heating value)

**Total fuel MWh consumed by the organization**

1441

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

1441

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

0

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

&lt;Not Applicable&gt;

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

&lt;Not Applicable&gt;

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

&lt;Not Applicable&gt;

**Emission factor**

74.51

**Unit**

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kg CO2e per million Btu

**Emissions factor source**

"Industrial (HHV). 2006 IPCC Guidelines for National Greenhouse Gas Inventories. Volume 2 - Energy. Table 2.3 Default Emission Factors for Stationary Combustion in Manufacturing Industries and Construction, Table 2.4 Default Emission Factors for Stationary Combustion in The Commercial/Institutional - [http://www.ipccnggip.iges.or.jp/public/2006gl/pdf/2\\_Volume2/V2\\_2\\_Ch2\\_Stationary\\_Combustion.pdf](http://www.ipccnggip.iges.or.jp/public/2006gl/pdf/2_Volume2/V2_2_Ch2_Stationary_Combustion.pdf)"

**Comment**

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**Fuels (excluding feedstocks)**

Jet Kerosene

**Heating value**

HHV (higher heating value)

**Total fuel MWh consumed by the organization**

13401

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

0

**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**

<Not Applicable>

**Emission factor**

9.75

**Unit**

kg CO2 per gallon

**Emissions factor source**

"Default emission factors from EPA Final Mandatory Reporting of Greenhouse Gases Rule Table C-1, as adapted by The Climate Registry and presented in the 2016 Climate Registry Default Emission Factors, Table 13.1: US Default CO2 Emission Factors for Transport Fuels. <https://www.theclimateregistry.org/wp-content/uploads/2014/11/2016-Climat-Registry-Default-Emission-Factors.pdf>"

**Comment**

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**Fuels (excluding feedstocks)**

Compressed Natural Gas (CNG)

**Heating value**

HHV (higher heating value)

**Total fuel MWh consumed by the organization**

0

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

0

**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**

<Not Applicable>

**Emission factor**

0.0019

**Unit**

metric tons CO2 per liter

**Emissions factor source**

Default emission factors are from EPA Final Mandatory Reporting of Greenhouse Gases Rule Table C-1. US Inventory of Greenhouse Gas Emissions and Sinks 1990 - 2016 (April 2017) Annex 3, Tables A-102 - A-109. As adapted by The Climate Registry General Reporting Protocol

**Comment**

CH4 and N2O emissions are calculated using emission factors in units of mileage; therefore, a CO2e emission factor cannot be provided.

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**Fuels (excluding feedstocks)**

Motor Gasoline

**Heating value**

HHV (higher heating value)

**Total fuel MWh consumed by the organization**

8613.7

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

0

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

0

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

&lt;Not Applicable&gt;

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

&lt;Not Applicable&gt;

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

&lt;Not Applicable&gt;

**Emission factor**

8.78

**Unit**

kg CO2 per gallon

**Emissions factor source**

Default emission factors from EPA Final Mandatory Reporting of Greenhouse Gases Rule Table C-1, as adapted by The Climate Registry and presented in the 2016 Climate Registry Default Emission Factors, Table 2.1: US Default CO2 Emission Factors for Transport Fuels. <https://www.theclimateregistry.org/wp-content/uploads/2019/05/The-Climate-Registry-2019-Default-Emission-Factor-Document.pdf>

**Comment**

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**Fuels (excluding feedstocks)**

Propane Liquid

**Heating value**

HHV (higher heating value)

**Total fuel MWh consumed by the organization**

3486

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

0

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

0

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

&lt;Not Applicable&gt;

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

&lt;Not Applicable&gt;

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

&lt;Not Applicable&gt;

**Emission factor**

5.72

**Unit**

kg CO2 per gallon

**Emissions factor source**

Default emission factors from EPA Final Mandatory Reporting of Greenhouse Gases Rule Table C-1, as adapted by The Climate Registry and presented in the 2016 Climate Registry Default Emission Factors, Table 2.1: US Default CO2 Emission Factors for Transport Fuels. <https://www.theclimateregistry.org/wp-content/uploads/2019/05/The-Climate-Registry-2019-Default-Emission-Factor-Document.pdf>

**Comment**

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**Fuels (excluding feedstocks)**

Other, please specify (Diesel (motor))

**Heating value**

HHV (higher heating value)

**Total fuel MWh consumed by the organization**

25313

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

0

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

0

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

&lt;Not Applicable&gt;

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

&lt;Not Applicable&gt;

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

---

<Not Applicable>

**Emission factor**

10.21

**Unit**

kg CO2 per gallon

**Emissions factor source**

Default emission factors from EPA Final Mandatory Reporting of Greenhouse Gases Rule Table C-1, as adapted by The Climate Registry and presented in the 2016 Climate Registry Default Emission Factors, Table 13.1: US Default CO2 Emission Factors for Transport Fuels. <https://www.theclimateregistry.org/wp-content/uploads/2014/11/2016-Climateregistry-Default-Emission-Factors.pdf>

**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	12556	12556	11115	11115
Heat	2082199	2082199	29033	29033
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**

Green electricity products (e.g. green tariffs) from an energy supplier, not supported by energy attribute certificates

**Low-carbon technology type**

Solar

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

Spain

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

70395.6

**Comment**

**Sourcing method**

Green electricity products (e.g. green tariffs) from an energy supplier, not supported by energy attribute certificates

**Low-carbon technology type**

Solar

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

Ireland

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

13658.4

**Comment**

C9. Additional metrics

C9.1

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

C10. Verification

C10.1

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**(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**

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**(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**

ERM CVS 2019 Assurance Statement Ball Corp FINAL v2.pdf

**Page/ section reference**

Page 1 of 2

**Relevant standard**

ISAE3000

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

100

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**C10.1b**

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(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**

ERM CVS 2019 Assurance Statement Ball Corp FINAL v2.pdf

**Page/ section reference**

Page 1 of 2

**Relevant standard**

ISAE3000

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

100

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**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**

ERM CVS 2019 Assurance Statement Ball Corp FINAL v2.pdf

**Page/ section reference**

Page 1 of 2

**Relevant standard**

ISAE3000

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

100

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## C10.1c

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(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 (upstream & downstream)

**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**

ERM CVS 2019 Assurance Statement Ball Corp FINAL v2.pdf

**Page/section reference**

Page 1 of 2

**Relevant standard**

ISAE3000

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

100

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## C10.2

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

Yes

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## C10.2a

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

Disclosure module verification relates to	Data verified	Verification standard	Please explain
C8. Energy	Energy consumption	ISAE3000	As part of our annual verification process, Ball has total energy consumption verified along with Scope 1, 2, and 3 GHG ERM CVS 2019 Assurance Statement Ball Corp FINAL v2.pdf

## C11. Carbon pricing

### C11.1

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

No, but we anticipate being regulated in the next three years

### C11.1d

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

Ball's strategy for complying with future regulation under carbon pricing systems is a combination of increasing efficiency and growing our share of renewable energy use, which is also in line with our strategy to achieve our Science-Based Targets. Ball anticipates being regulated by a carbon pricing system in the next 3 years.

In the reporting period, Ball revised our 2°C Science-Based Target to align with the most recent climate science developed by the Intergovernmental Panel on Climate Change (IPCC). In 2018 the IPCC determined that limiting global temperature rise to 2°C above pre-industrial levels would not be sufficient to limit global warming. Instead, the IPCC as announced that the level of decarbonization required to limit global warming is 1.5°C compared to pre-industrial levels. As a result, Ball's newly revised and approved science based target is aligned to a 1.5°C scenario. We are now committed to a 55% absolute reduction of Scope 1 and Scope 2 emissions by 2030, double the absolute emissions reductions from our previous 2°C scenario target. By increasing energy efficiency and increasing the share of our renewable energy, Ball will significantly reduce our Scope 1 and Scope 2 greenhouse gas emissions. This dual strategy not only helps us achieve our emission reduction targets but also help us comply with the direct and indirect costs (higher energy prices) of potential future carbon pricing system regulations.

To execute this strategy, in 2018 Ball organized an internal renewable energy team consisting of members of the sustainability team, energy procurement, treasury, finance, accounting, government relations, and communications. In the reporting period, Ball negotiated and signed two Virtual Power Purchase Agreements (VPPAs), one wind and one solar, for 388 MW of new renewable energy to address 100% of Ball's North American electricity load utilized in its corporate, packaging and aerospace operations by the end of 2021. In late 2019, Ball continued to seek renewable energy opportunities in Europe and has now signed two long-term virtual power purchase agreements to address our European electricity load. These European VPPAs will cover the electricity load of approximately 10 beverage packaging plants. Together, these projects will allow Ball to reduce its global Scope 2 greenhouse gas emissions by roughly 64%. The government relations representative is key to informing the group of potential carbon pricing regulation, which will further inform the decision of what future region or countries to focus our next renewable energy efforts along with other variables such as location-based and supplier-specific Scope 2 emission intensities.

### C11.2

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

No

### C11.3

**(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

### C12.1

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

- Yes, our suppliers
- Yes, our customers
- Yes, other partners in the value chain

**C12.1a**

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

**Type of engagement**

Information collection (understanding supplier behavior)

**Details of engagement**

Collect climate change and carbon information at least annually from suppliers

**% of suppliers by number**

20

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

50

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

80

**Rationale for the coverage of your engagement**

The majority of our scope 3 emissions derive from metal production. GHG emissions from metal production highly correlate with the recycling rate of the respective material in the respective country or region. Based on an average European aluminum beverage can recycling rate of 74%, for example, the ratio of GHG emissions from metal production and can manufacturing (in Europe) is roughly 4:1. That is why – in addition to our own efforts to improve energy efficiency in our plants – we are cooperating with our suppliers and other partners to better understand their processes and their own Scope 1 and Scope 2 emission reduction opportunities. Since we started developing a Science-Based Target in 2016, we have been reaching out to all aluminum and tinplate suppliers for specific energy and GHG information. These suppliers represent more than 50% of our total spend in 2019.

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

Based on the information that we have collected, Ball has been able to more accurately capture our Scope 3 emissions and develop a Science-Based Scope 3 emissions target, a 16% reduction by 2030 from a 2017 baseline. Ball will use this new target to further engage suppliers on value chain emissions management. Ball defines success by increasing recycling rates globally towards 100%. Currently recycling rates vary globally, the lowest being 28% in Chile and the highest being 98% in Brazil. In the US recycling rates are only around 49%.

**Comment**

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**C12.1b**

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

**Type of engagement**

Collaboration & innovation

**Details of engagement**

Run a campaign to encourage innovation to reduce climate change impacts

**% of customers by number**

30

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

0

**Portfolio coverage (total or outstanding)**

<Not Applicable>

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

We continue to share and discuss insights from life cycle assessments of our products with our customers. Throughout 2019 Ball conducted a peer reviewed comparative Life Cycle Assessment for beverage packaging across the United States, Europe and Brazil. We have engaged our customers and presented repeatedly on the initial findings of our research to better inform their packaging decisions and the risk of not considering real circularity as we transition to a low carbon economy. These studies show that the extraction and processing of raw materials create the major environmental impacts related to the environmental footprint of beverage cans, and that lightweighting and recycling reduces those impacts. Based on the LCA results, we identified the processes with the highest impacts and the most effective options to reduce those impacts together.

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

Engagement on life cycle information makes it easier to initiate new projects within our supply chain to reduce the environmental impacts of metal cans even more. Ball defines success by the number of customers to which Ball is able to align to its environmental goals. Specifically, Ball considers its engagement successful if its emissions reduction efforts align with 100% of our key customer's science-based targets. In 2019 Ball achieved this goal.

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**C12.1d**

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**(C12.1d) Give details of your climate-related engagement strategy with other partners in the value chain.**

Recycling of our metal packaging is the biggest opportunity to reduce the carbon footprint of metal packaging. That is why we engage with suppliers, customers and other stakeholders such as communities, consumers, and recycling markets to further increase recycling rates of metal packaging ([www.ball.com/recycling](http://www.ball.com/recycling)). Our primary method of engagement is through collaborative partnerships such as The Recycling Partnership and the Every Can Counts campaign. Ball has worked with key customers to support The Recycling Partnership which has made a meaningful impact on recycling rates in the U.S. In 2019 Ball established a Public Affairs team to better communicate and engage all stakeholders on the importance of increasing recycling rates and achieving real circularity. At its purest, real circularity involves the continuous recovery and reuse of materials, with nothing lost during the process. In terms of recycling, this means that all materials are properly collected and sorted, then each part of each product is separated out and fully recycled with minimum material loss, to become part of a product of similar value. To achieve circularity, the Public Affairs team will be working to communicate the need for sustainable packaging design, functional infrastructure, and extended producer responsibility.

Furthermore, Ball is an active member of the Aluminium Stewardship Initiative (ASI, <http://aluminium-stewardship.org>) and serves on the ASI Standards Committee. ASI's objective is to develop a standard to foster responsible environmental, social and governance principles and performance throughout the aluminum value chain. The standard will apply to all aluminum value chain stages, from bauxite mining to smelting, material conversion, consumer/commercial goods suppliers and recycling. It addresses critical industry issues, including energy and greenhouse gas emissions, waste management, biodiversity and land management, pollution, resource efficiency, recycling, labor rights, indigenous rights and transparency. ASI members include organizations from different sectors, including production and transformation, industrial users and civil society. Several of our suppliers and some customers, as well as the World Wildlife Fund for Nature (WWF), the International Union for Conservation of Nature (IUCN), and the Institute for Human Rights and Business (IHRB) are ASI members as of July 2019. Additionally, ASI's PS Standard has various GHG-related requirements for its members, including a threshold of 8 tCO<sub>2</sub>e/tAlu for smelter emissions. Ball feels that we can have highest impact on climate-related issues in the value chain through cross-collaboration platforms like ASI. Thus, in 2019, Ball has encouraged all aluminium supplies to pursue ASI certification.

**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
- Other

**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
Clean energy generation	Support	In 2019, Ball directly engaged with policy makers to support climate related policy associated with renewable energy and energy efficiency standards in several U.S. states that we operate in. Arizona - Ball signed on to a letter addressed to the Arizona Corporation Commission expressing our support for a strong, enforceable renewable energy standard and tariff (REST) and electric energy efficiency standards (EEES). We also recommended that the Commission consider requiring Arizona utilities adopt a robust carbon emissions reduction target that is based on the latest climate science. In the letter, Lastly, we also expressed our opposition for transitioning to voluntary clean energy standards. Ohio – Ball signed on to a letter addressed to the Ohio Governor to request the formation of a cross-sector working group or an alternative engagement process whereby Ball and other companies could work with the state of Ohio to identify opportunities to advance new clean energy policy in Ohio, following the passing of Ohio HB6. Colorado – Ball signed on to a letter addressed to the Colorado Public Utilities Commission expressing our support for Xcel Energy's certified renewable percentage (CRP) proposal which we believe would align the interests of utilities, large energy buyers, and ratepayers with public policy objectives to deploy cost-effective clean energy on the grid. This alignment of incentives can increase support for policies that accelerate investment in system-wide clean resources.	Ball supports each of these legislations without exception. Where possible, Ball is working to increase support policies that accelerate clean resources and reduce carbon emissions.

**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**

National Association of Manufacturers

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

Consistent

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

"The establishment of federal climate change policies to reduce greenhouse gas emissions, whether legislative or regulatory, must be done in a thoughtful, deliberative, and transparent process that ensures a competitive level playing field for U.S. companies in the global marketplace. Therefore, the NAM opposes any federal or state government actions regarding climate change that could adversely affect the international competitiveness of the U.S. marketplace economy. Any climate change policies should focus on cost-effective reductions, be implemented in concert with all major emitting nations, and take into account all greenhouse sources and sinks. The NAM believes that federal climate policies generally should preempt state policies." (quote from report "Assessing Trade and Business Groups' Positions on Climate Change;" Union of Concerned Scientists; 2013)

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

The SVP and CFO of Ball Corporation is a member of the Board of Directors for the National Association of Manufacturers and participates in relevant working groups.

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**Trade association**

The Business Roundtable

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

Consistent

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

"Because the consequences of global warming for society and ecosystems are potentially serious and far-reaching, Business Roundtable believes that steps to address the risks of such warming are prudent and supports collective actions that will lead to the reduction of greenhouse gas emissions on a global basis."

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

Chairman, President and CEO Ball Corporation leads the Corporate Governance Committee for The Business Roundtable.

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**C12.3d**

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

No

**C12.3e**

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**(C12.3e) Provide details of the other engagement activities that you undertake.**

In 2020, Ball published a peer-reviewed comparative LCA for aluminum beverage cans, PET and glass bottles, as well as beverage cartons in Brazil, Europe and the United States. This activity was completed by Ball to engage with customers, NGOs, policymakers and other interested parties on real recycling and the future of the global recycling infrastructure because recycling is a key factor impacting the sustainability profile of all substrates.

The LCA found that with today's actual recycling rates and recycled content, aluminum cans have a lower carbon footprint compared with glass bottles and PET bottles for carbonated beverages. It also covered various sensitivity analysis and scenarios. For example, it shows that beverage cans have the highest carbon footprint variability when recycling rates, recycled content, and container weights are changed. Therefore, the cans' environmental impacts will benefit more than other substrates from increasing recycling rates, higher recycled content and lower container weights.

To move from linear to circular thinking, this study also applied the Material Circularity Indicator (MCI) methodology developed by the Ellen MacArthur Foundation. Related scores allow interested parties to understand to what extent different packaging options are a good fit for the circular economy.

MCI scores range from 0.1, a linear product, to 1, a perfectly circular product. In all three regions, aluminum cans achieve the best material circularity scores of any single-use packaging option. Despite the fact that beverage cartons are challenging to recycle, the MCI methodology considers paperboard from sustainable sources as fully circular.

The study results underline that by increasing efficiencies in our own operations and within our supply chain, switching our electricity use to renewable energy and – most importantly – working with our customers, suppliers and other partners to increase recycling rates, the environmental profile of aluminum cans can be further enhanced, making cans a low carbon and circular package of choice.

The full LCA report, regional summaries and additional information about the LCA can be found online: <https://www.ball.com/realcircularity>

**C12.3f**

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**(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?**

At Ball, we engage on public policy through participation in various trade associations. We utilize communications on our intranet to ensure our employees are informed about and have access to our positions on any sustainability-related topics such as climate change. This process for utilizing internal dashboard communications ensures all engagement is consistent because the employees who interact both directly and indirectly with policy makers and trade associations are required to read, understand and align with these internal communications, and applicable internal policies.

C12.4

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**(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, in line with the CDSB framework (as amended to incorporate the TCFD recommendations)

**Status**

Complete

**Attach the document**

Ball Corp\_2019 10K.pdf

**Page/Section reference**

Pages 8 and 10

**Content elements**

Governance  
Strategy  
Risks & opportunities

**Comment**

Attached is Ball's 2019 10K

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**Publication**

In voluntary communications

**Status**

Complete

**Attach the document**

Ball Data Center\_GHG Emissions.PNG

**Page/Section reference**

Page 1/Image 1

**Content elements**

Emission targets  
Other metrics

**Comment**

Ball's Data Center contains several metrics, including emissions, energy, water, waste, and VOCs. <https://www.ball.com/data-center>

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**Publication**

In voluntary communications

**Status**

Complete

**Attach the document**

Ball Data RE\_Europe\_and\_North America.PNG

**Page/Section reference**

Page 1/Image 1

**Content elements**

Strategy  
Emissions figures  
Emission targets

**Comment**

These images are a screenshot of Ball's news release highlighting our North American and European VPPAs

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**Publication**

In voluntary sustainability report

**Status**

Complete

**Attach the document**

Ball-SR20-Web\_FINAL.pdf

**Page/Section reference**

Pages 4-5, 16-23, 38-39

**Content elements**

Governance  
Strategy  
Risks & opportunities  
Emissions figures  
Emission targets  
Other metrics

**Comment**

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## C15. Signoff

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### C-FI

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**(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.**

Regarding Ball's response to C2.3a, in previous years Ball has identified multiple risks that have the potential to have a financial impact on our business; however, in 2020 we have chosen to only report on the three risks most critical to our business. We acknowledge that Ball is not exclusively exposed to these three risks, however, to ensure material disclosure within CDP, we have selected these three risks as most significant to our operations.

This submission contains "forward-looking" statements concerning future events and financial performance. Words such as "expects," "anticipates," "estimates," "believes," "targets," "likely," "positions" and similar expressions typically identify forward-looking statements, which are generally any statements other than statements of historical fact. Such statements are based on current expectations or views of the future and are subject to risks and uncertainties, which could cause actual results or events to differ materially from those expressed or implied. You should therefore not place undue reliance upon any forward-looking statements and any such statements should be read in conjunction with, and, qualified in their entirety by, the cautionary statements referenced below. The company undertakes no obligation to publicly update or revise any forward-looking statements, whether as a result of new information, future events or otherwise. Key factors, risks and uncertainties that could cause actual outcomes and results to be different are summarized in filings with the Securities and Exchange Commission, including Exhibit 99 in our Form 10-K, which are available on our website and at [www.sec.gov](http://www.sec.gov). Additional factors that might affect: a) our packaging segments include product capacity, supply, and demand constraints and fluctuations, including due to virus and disease outbreaks and responses thereto; availability/cost of raw materials and logistics; competitive packaging, pricing and substitution; changes in climate and weather; footprint adjustments and other manufacturing changes, including the startup of new facilities and lines; failure to achieve synergies, productivity improvements or cost reductions; mandatory deposit or other restrictive packaging laws; customer and supplier consolidation; power and supply chain interruptions; potential delays and tariffs related to the U.K.'s departure from the EU; changes in major customer or supplier contracts or a loss of a major customer or supplier; political instability and sanctions; currency controls; changes in foreign exchange or tax rates; and tariffs, trade actions, or other governmental actions, including business restrictions and shelter-in-place orders in any country or jurisdiction affecting goods produced by us or in our supply chain, including imported raw materials, such as those related to COVID-19 and those pursuant to Section 232 of the U.S. Trade Expansion Act of 1962 or Section 301 of Trade Act of 1974; b) our aerospace segment include funding, authorization, availability and returns of government and commercial contracts; and delays, extensions and technical uncertainties affecting segment contracts; c) the company as a whole include those listed plus: the extent to which sustainability-related opportunities arise and can be capitalized upon; changes in senior management, succession, and the ability to attract and retain skilled labor; regulatory action or issues including tax, environmental, health and workplace safety, including U.S. FDA and other actions or public concerns affecting products filled in our containers, or chemicals or substances used in raw materials or in the manufacturing process; technological developments and innovations; the ability to manage cyber threats and the success of information technology initiatives; litigation; strikes; disease; pandemic; labor cost changes; rates of return on assets of the Company's defined benefit retirement plans; pension changes; uncertainties surrounding geopolitical events and governmental policies both in the U.S. and in other countries, including policies, orders and actions related to COVID-19, the U.S. government elections, stimulus package(s), budget, sequestration and debt limit; reduced cash flow; interest rates affecting our debt; and successful or unsuccessful joint ventures, acquisitions and divestitures, and their effects on our operating results and business generally.

### C15.1

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**(C15.1) Provide details for the person that has signed off (approved) your CDP climate change response.**

	Job title	Corresponding job category
Row 1	Chief Commercial and Sustainability Officer	Chief Sustainability Officer (CSO)