

C0. Introduction

C0.1

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

Berry Global Group, Inc. (NYSE:BERY), headquartered in Evansville, Indiana, is committed to its mission of 'Always Advancing to Protect What's Important,' and proudly partners with its customers to provide them with value-added protective solutions that are increasingly light-weighted and easier to recycle or reuse. The Company is a leading global supplier of a broad range of innovative rigid, flexible, and nonwoven products used every day within consumer and industrial end markets. Berry, a Fortune 500 company, has over 48,000 employees and generated \$12.6 billion of pro forma net sales in fiscal year 2019, from operations that span over 290 locations on six continents. For additional information, visit Berry's website at berryglobal.com.

C0.2

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

	Start date	End date	Indicate if you are providing emissions data for past reporting years	Select the number of past reporting years you will be providing emissions data for
Reporting year	October 1 2018	September 30 2019	No	<Not Applicable>

C0.3

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

- Argentina
- Australia
- Belgium
- Bosnia & Herzegovina
- Brazil
- Canada
- China
- China, Hong Kong Special Administrative Region
- Colombia
- Czechia
- Denmark
- Estonia
- Finland
- France
- Germany
- Hungary
- Iceland
- India
- Italy
- Lithuania
- Malaysia
- Mexico
- Netherlands
- Norway
- Philippines
- Poland
- Romania
- Russian Federation
- Slovakia
- South Africa
- Spain
- Sweden
- Switzerland
- Thailand
- Tunisia
- United Kingdom of Great Britain and Northern Ireland
- United States of America

C0.4

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

USD

C0.5

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

Operational control

C1. Governance

C1.1

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

Yes

C1.1a

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

Position of individual(s)	Please explain
Director on board	The Berry Global board hold the highest level of direct responsibility for decisions relating to the company strategy in respect of all areas inclusive of environmental issues such as climate change. The board ensures Berry Global operates to the highest standards in all aspects of governance and risk management. The Berry Global board met 9 times during the 2018/19 financial year. The Berry Global board review the companies long term strategic plans and the principal issues that the company will face in the future (such as climate-related risks) during at least one Board meeting each year. An example of a climate related decision made by the board is the adoption of the Impact 2025 sustainability strategy target to reduce greenhouse gas emissions by 25% by 2025 based on a 2016 baseline. This decision was made through an assessment of climate related risk to the company based on a 2DS climate change scenario.
Board Chair	The Board Chair (who also holds the position of Berry Global CEO) has overall responsibility for risk management, including climate-related risk. The CEO also has oversight of the Berry Global corporate goals, which include greenhouse gas emissions reduction and other climate-related metrics such as the GHG emissions target set out in the Berry Global Impact 2025 sustainability strategy.
Board-level committee	The Berry Global audit committee which is comprised of members of the board, appointed by recommendation of the Berry Global Nominating and Governance Committee, has the primary function to serve as an independent and objective party to assist the board in fulfilling its oversight responsibilities relating to but not limited to the performance of the company's internal audit function and risk assessment and risk management practices of the company, inclusive of climate related issues. The committee meets as often as it determines necessary, but not less frequently than quarterly. In the 2018/19 financial year the audit committee met 4 times.

C1.1b

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

Frequency with which climate-related issues are a scheduled agenda item	Governance mechanisms into which climate-related issues are integrated	Scope of board-level oversight	Please explain
Scheduled – all meetings	Reviewing and guiding strategy Reviewing and guiding major plans of action Reviewing and guiding risk management policies Reviewing and guiding business plans Setting performance objectives Monitoring implementation and performance of objectives Monitoring and overseeing progress against goals and targets for addressing climate-related issues	<Not Applicable>	It is the direct responsibility of the Chief Executive Officer and the other members of management to manage the Company's enterprise risks on a day-to-day basis. The Board of Directors has responsibility for the oversight of risk management on an enterprise-wide basis through regular updates from management and the strategic planning process. The Audit Committee assists the Board of Directors in fulfilling its oversight responsibilities by reviewing and discussing with management the Company's major risk exposures and the results of an annual corporate-wide risk assessment, the related corporate guidelines, and policies for risk assessment and risk management. The Company's approach to risk management is to identify, prioritize, monitor and appropriately mitigate all material business risks in order to support the Company's strategy, including proper financial management and sustainable growth, while protecting and enhancing stockholder value. In addition, the Board of Directors delegates certain risk management oversight responsibilities to its committees; for example, the Audit Committee is responsible for overseeing our material financial and other risk exposures, including risks relating to the financial reporting process and internal controls, as well as risks from related party transactions, and the Compensation Committee is responsible for overseeing risks relating to our compensation programs. The Berry Global board meets at least 4 times per year, approximately 25% of the board's time is spent on governance, internal controls and risk in which climate related issues would be discussed. During the 2018/19 financial year the board met 9 times. The Berry Global audit committee, made up of members of the Berry Global board, appointed by recommendation of the Berry Global Nominating and Governance Committee, review and oversee effectiveness of the risk management framework and internal controls, including the internal audit function, on behalf of the board. The committee meets as often as it determines necessary, but not less frequently than quarterly. In the 2018/19 financial year the audit committee met 4 times with risk management being discussed at all of these meetings. The Berry Global board are responsible for: carrying out an annual strategy review which takes in to account strategic and other relevant risks; approving yearly financial budgets; oversight of the Enterprise Risk Assessment that identifies and details specific risks relevant to the business as assessed by the audit committee and company wide risk assessment process.

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)	<Not Applicable>	Both assessing and managing climate-related risks and opportunities	<Not Applicable>	Quarterly

C1.2a

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

The Berry Global CEO, whom is also the Chairman of the Berry Global Board, holds overall responsibility, along with the board for corporate strategy governance, performance, internal controls and risk management. The responsibility for climate-related issues therefore rests ultimately with the CEO and the Berry Global board. Climate related issues are monitored by the CEO and the board if these are raised by the Chief Legal Officer as part of the company annual Enterprise Risk Assessment process as reported to the Berry Global audit committee, Chief Strategy Officer or the Executive VP Operations. The Chief Strategy Officer and his team, inclusive of the company VP Sustainability, also raise climate-related issues to the CEO independent of the Enterprise Risk Assessment as they arise.

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
Other C-Suite Officer	Monetary reward	Emissions reduction target Energy reduction target	The Berry Global operational goals (including GHG reduction, energy reduction, and other climate-relevant metrics) are included in our Executive VP - Operations' personal goals. A portion of bonus payout is discretionary and determined by achievement of personal goals.
Facilities manager	Non-monetary reward	Energy reduction project Energy reduction target	Energy performance is tracked on and reported monthly. Each month, the facilities that have performed the best year-over-year are recognized for their achievements. The recognition is done in a monthly email that goes to executive leadership, operations leadership, and energy reduction focal point(s) at each facility. Additionally, we have a separate recognition system for sharing best practices. Whenever a site completes a significant energy reduction or efficiency project, a summary of the project is sent out to executive leadership, operations leadership, and energy reduction focal point(s) at each facility. At that time, the entire team involved with implementing the project is recognized for their achievements.

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	8	
Long-term	8	30	

C2.1b

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

Berry Global defines substantive financial and strategic impact through a scale of impact that ranges from insignificant to catastrophic as set out below:

Insignificant - Consequences can be readily absorbed under normal operating conditions

- <1% on pre-tax earnings
- No potential impact on market share
- No impact on brand value
- No resolution required

Significant - Event which can be managed under normal operating conditions

- 1% - 3% on pre-tax earnings
- Minor potential impact on market share
- Minor impact on brand value
- Issues would be delegated to management / staff to resolve

Serious - Major events which can be managed but require additional resources and management effort

- 3% - 5% on pre-tax earnings
- Market share and/or brand value will be affected in short term
- Cash flow may be affected
- The event will require senior management intervention

Critical - Critical event which can be endured but which may have a prolonged negative impact and extensive consequences

- 5% - 10% on pre-tax earnings
- Serious diminution in brand value / market share
- Cash flow may be adversely affected
- Key alliances are threatened
- Events and problems will require board / senior management attention

Catastrophic - Disaster with potential to lead to collapse of business that is fundamental to the achievement of objectives

- >10% on pre-tax earnings
- Imminent cash-flow problems
- Loss of key alliances
- Sustained serious loss in market share

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

Annually

Time horizon(s) covered

Short-term
Medium-term
Long-term

Description of process

The Berry Global risk management framework process provides a consistent methodology by which every business, division, senior management and ultimately the board assess the risks that the group faces against a defined set of probability and impact criteria. The Berry Global Enterprise Risk Assessment (ERA) is completed on an annual basis. This process is carried out by a 3rd party every other year in order to remain subjective, the process is carried out internally on alternate years. The ERA identifies risk through a number of processes. Approximately 35 members of the Berry senior management team from across the company are interviewed to identify risks they perceive as being applicable to the business. These interviews are conducted across a number of geographies and functional areas such as legal, division leads, purchasing, sustainability etc. in order to obtain results representative of the global operations of Berry. A questionnaire is also sent to approximately 100 employees, representing a mix of job functions and locations, across the organisation to identify any further risks. The information from both of these risk identification processes is then gathered in to a central database and the risks are categorized in to a number of themes (approx. 15) such as supply chain (upstream), production (direct operations), infrastructure and external market forces (downstream). Each risk identified is rated based on the risk impact (insignificant to catastrophic), the likelihood of occurrence (unlikely to almost certain) and speed of onset (immediate to long-term). Each of the ratings are associated with a risk score, the higher the impact, likelihood or speed of onset the higher the risk score for each risk identified. An example of climate-related physical risks identified through the Berry Global risk process is a natural disaster which results in the destruction of company facilities and production capabilities. For Berry Global this risk is higher and more likely in areas which are more susceptible to natural disasters such as India (cyclones and floods), parts of the United States (tornadoes, hurricanes, flooding) and China (flooding, droughts, typhoons and earthquakes) where Berry Global operations are located. An example of a climate-related transitional risk identified through the Berry Global risk process is the change in consumer perception of plastics due to the negative perception of plastics impact on the environment which is driving a market shift towards non-plastic packaging. As Berry Global is one of the world's largest manufacturers of plastic packaging this risk could have significant strategic and financial impact. The top 5 risk themes are then extracted from the risk database, transcribed in to a report that details the inherent risk and key mitigation activities. This report is submitted to the audit committee and the board for appropriate mitigation plans to be actioned against the most significant risks identified by the process. In addition to and contributory to the Enterprise Risk Assessment, an annual carbon risk assessment and physical risk assessment are also performed. The Berry Global GHG inventory is used to estimate the current portion of energy costs due to carbon taxes, emissions trading schemes etc. based on the latest regulatory information. Forward looking carbon risk is then estimated based on a variety of scenarios using different carbon prices, geographies and time horizons. For the purposes of this assessment a substantive financial impact would be one that increases costs significantly above typical inflation. Alongside these measures risk is identified and assessed continually across the company through the use of live dashboards that monitor energy use and GHG emissions based on usage data. Monitoring of data in this way allows a more frequent response to risks and opportunities than the annual Enterprise Risk Assessment.

C2.2a

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

	Relevance & inclusion	Please explain
Current regulation	Relevant, always included	Climate change regulation is a fundamental part of the risk assessment process. Berry Global is in the manufacturing sector, and a number of climate change regulations can significantly affect the company. One example of current regulation that is considered is the Climate Change Act in the UK where Berry Global has a significant number of manufacturing facilities. The cost of such regulation, in this case the climate change levy rates applied to energy purchases, is significant and forecast to rise.
Emerging regulation	Relevant, always included	Climate change regulation is a fundamental part of the risk assessment process. Berry Global is in the manufacturing sector, and a number of climate change regulations, such as the current and future carbon prices as called for by regulation can significantly affect the company. For example, according to a 2019 World Bank report on trends the average carbon prices could increase more than sevenfold to US\$120 per metric ton by 2030. Berry Global has manufacturing facilities in >40 countries with current carbon pricing ranging from \$0-120 so an increase to \$120 per metric ton of carbon would have a significant financial impact.
Technology	Relevant, always included	Technology as a climate related risk is considered by Berry's risk assessment process. Technology is a very important lever for reducing both energy intensity in Berry Global operations (more efficient equipment/processes) as well as the emissions intensity of the energy we purchase (primary focus on renewable energy). Risks related to energy cost management are identified during site risk assessments and the development of energy efficiency programs is actioned to mitigate risks in this area. Technology has been utilized in parts of the company to reduce risks related to increased carbon emissions. For example, the installation of the world's largest electrically-heated rotational moulding machine has delivered a significant reduction in CO2 emissions at Berry's Sæplast Iceland factory. Conventional roto moulding machines are heated with fossil fuel burners. However, when the site wanted to expand capacity, it was decided to explore the opportunity to utilize a greener form of energy for the new machine. Since its installation over five years ago, the use of green electricity has eliminated the need for around 800,000 litres of diesel fuel – equivalent to the annual usage of approximately 500 cars. As a result, CO2 emissions from the plant are now 30% lower despite a volume increase of over 20%.
Legal	Relevant, always included	The Berry risk assessment process is all encompassing and we stay up-to-date on climate-related issues, including lawsuits. At this time, we do not believe the likelihood of a climate-related lawsuit targeting Berry is high. We are aware of recent lawsuits, for example the case brought by DC and Minnesota against large oil and gas companies, and will continue to monitor this risk in relation to plastic manufacturers.
Market	Relevant, always included	Market shifts and forecasts around fossil fuels are closely monitored since fossil fuels represent not just our primary energy sources, but also the primary source for most of our raw materials. Fuel and energy represents more than 5% but less than or equal to 10% of operational spend for Berry Global so any fluctuation in fuel/energy taxes will have a significant impact on site operational spend and financial performance and therefore commodity supply changes including energy supply so is always included in climate related risk assessment. Berry Global is in the manufacturing sector, and number of climate change regulations, including Climate Change Act in the UK, has significant impact, including the impact of associated costs such as Climate change levy rates, therefore it is considered in risk assessments (for example total CCL we pay at the moment is significant, and its forecasted to increase already in the future).
Reputation	Relevant, always included	Berry Global has identified increased risk associated with general perception of the products, including adverse publicity regarding plastic waste on the environment. The Group already produces a significant amount of recyclable products and through innovation will continue to work with customers to meet any change in demands and to reduce the carbon footprint and therefore the climate impact of products supplied. Alongside reducing the carbon impact of products manufactured, Berry Global employs strict control measures and externally accredited systems to ensure the safety and quality of products that are manufactured. These control measures also help to reduce waste and associated carbon emissions. Berry Global is a signatory of the Ellen MacArthur Foundation's Global Commitment and the Alliance to End Plastic Waste in order to improve the reputation of plastic and to work towards common industry goals related to improving the environmental impact of plastic.
Acute physical	Relevant, always included	Berry Global businesses face the potential risk of operations being affected by disruption due to loss of supply, failures with technology, industrial disputes and physical damage arising from extreme weather events, such as flood or other catastrophe. The occurrence of these events might be significantly influenced by climate change. The loss of essential services or supplies could have a significant impact on Berry's ability to service its customers. As an example the Berry manufacturing site in Bosnia, that experienced damage from flooding, invested in significantly raising the floor height of the production area to mitigate against future flood risk.
Chronic physical	Relevant, always included	Chronic physical risks are considered in the analysis of external risks. External risks occur in the environment outside the Group and its business units and tend to be risks over which it has little or no control including the physical environment, political, legal, economic, social, cultural and demographic factors. An example of where this risk has been assessed at Berry Global is chronic physical risks associated with water use. Using the WRI Aqueduct tool we have identified 17 sites that are categorized as being in high chronic physical risk regions and may be susceptible to chronic events such as severe droughts and floods which could impact manufacturing operations.

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

Current regulation	Carbon pricing mechanisms
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Primary potential financial impact

Increased indirect (operating) costs

Climate risk type mapped to traditional financial services industry risk classification

<Not Applicable>

Company-specific description

Berry Global operates across over 290 manufacturing sites globally, with the increase in climate related policy and increased use of carbon pricing, this has the potential to increase our direct cost of energy. Facilities that are exposed to increased/new carbon prices are expected to have cost increases above typical inflation, which for the purposes of this analysis, is considered a substantive financial impact for the facility in question. As an example, in the UK with new Clean Growth Strategy announced in 2016 the regulation providing increased rates for climate change levy is already in place, and from 1st of April 2018 we will have 3% increase on our CCL for all of our electricity and gas bills. Therefore we aim at managing this risk via energy efficiency actions and climate change agreements providing significant reduction of the rates. However, most of the Berry Global facilities operate in jurisdictions that do not currently have carbon pricing, nor are expected to within the medium-term. This is therefore considered a low risk when evaluated at the enterprise level.

Time horizon

Medium-term

Likelihood

Virtually certain

Magnitude of impact

Low

Are you able to provide a potential financial impact figure?

Yes, a single figure estimate

Potential financial impact figure (currency)

1000000

Potential financial impact figure – minimum (currency)

<Not Applicable>

Potential financial impact figure – maximum (currency)

<Not Applicable>

Explanation of financial impact figure

The potential financial impact would depend on the energy consumption for the site(s) experiencing increases in the cost of energy and the magnitude of the increase. For most sites, the annual financial impact would be on the order of magnitude of \$100,000 USD. Given the potential for multiple sites to be affected at once, the overall potential annual impact is on the order of magnitude of \$1,000,000 USD. An example of this is the Climate Change agreement (CCA) held by Berry Global factories in the UK which has targets for energy efficiency and carbon reduction. If targets are not met there is a £12/tCO₂e penalty cost, with an increased cost of £14/t CO₂ by 2020. With a reduction target of 17% in energy efficiency up to 2020 this represents a significant cost if targets are not met. If emissions remained the same as the baseline year then the cost in carbon would be > £100,000 as well as the loss of the Groups CCA agreement which provides a reduction in the climate change levy charged on fuels.

Cost of response to risk

0

Description of response and explanation of cost calculation

Increases in energy costs each year are normal, even in the absence of carbon legislation. We drive continuous improvement at all of our manufacturing sites through energy reduction programs, etc. to reduce the potential impact of energy cost increases. For example the Berry Global manufacturing facilities now source 48% of electricity from renewable sources which reduces our level of risk exposure in this area. Furthermore, we monitor existing and proposed carbon legislation for potential impacts. Given that any increases would most likely also affect our competitors, we do not believe this would negatively affect our competitiveness. Although carbon legislation would drive increases in energy prices beyond typical inflation, we believe the overall effect on our energy costs will generally be within normal inflation. There is no additional cost to managing these risks. It is done within the bandwidth of existing resources.

Comment**Identifier**

Risk 2

Where in the value chain does the risk driver occur?

Upstream

Risk type & Primary climate-related risk driver

Emerging regulation	Carbon pricing mechanisms
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Primary potential financial impact

Increased indirect (operating) costs

Climate risk type mapped to traditional financial services industry risk classification

<Not Applicable>

Company-specific description

Increased use of carbon pricing has the potential to increase energy costs for Berry's raw material suppliers, when this cost is passed down the supply chain it therefore becomes a risk for Berry Global related to increased raw material costs. Berry Global facilities with raw material suppliers exposed to increased/new carbon prices are expected to have raw material cost increases above typical inflation, which for the purposes of this analysis, is considered a substantive financial impact for the facility in question. Most of the Berry Global facilities are supplied by raw material suppliers in jurisdictions that do not currently have carbon pricing, nor are expected to within the medium-term. This is therefore considered a low risk when evaluated at the enterprise level.

Time horizon

Medium-term

Likelihood

Likely

Magnitude of impact

Low

Are you able to provide a potential financial impact figure?

Yes, a single figure estimate

Potential financial impact figure (currency)

10000000

Potential financial impact figure – minimum (currency)

<Not Applicable>

Potential financial impact figure – maximum (currency)

<Not Applicable>

Explanation of financial impact figure

Berry's primary raw material is resin and represents one of our highest costs. If our resin suppliers experience cost increases due to climate legislation, they would attempt to pass those increases on to us. Given the amount of resin we buy; increases could feasibly be in the order of magnitude of \$10 million USD per year. Since producing plastic resin is typically less energy intensive than alternatives, such as paper, metal, and glass, we believe we will be well positioned to capture additional market share.

Even though costs would increase for our raw materials, plastics would presumably be less affected than alternative substrates, on a functional unit basis.

Cost of response to risk

0

Description of response and explanation of cost calculation

Historically, we have been able to successfully manage the impact of higher raw material costs by increasing our selling prices. Sales contracts have cost pass-through clauses wherever possible. Pricing for the primary raw material we purchase - resin - typically fluctuates every month. Raw material cost increases due to carbon pricing are expected to be within typical monthly price fluctuations and therefore well within the capabilities of our management. Furthermore, we continually strive to lightweight our products, which reduces our exposure to raw material risks. There is no additional cost to managing these risks. It is done within the bandwidth of existing resources.

Comment

Identifier

Risk 3

Where in the value chain does the risk driver occur?

Downstream

Risk type & Primary climate-related risk driver

Market	Changing customer behavior
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Primary potential financial impact

Decreased revenues due to reduced demand for products and services

Climate risk type mapped to traditional financial services industry risk classification

<Not Applicable>

Company-specific description

As the world shifts to a low-carbon economy and consumers become more aware and educated about climate change, it has the potential to negatively impact consumers' view of fossil fuels and cause them to move away from the purchase of products that utilize fossil fuels in their manufacture. The primary raw material of Berry is polymer resin derived from fossil fuels therefore posing a risk to the products that Berry manufactures. The CPI & CPNA divisions of Berry manufacture fast moving consumer goods packaging where numerous other substrates are available from competitors that could be perceived as more environmentally conscious materials, despite the fact that plastic packaging often has a lower carbon footprint than alternative materials. CPI & CPNA combined represent approximately 43% of Berry sales, the risk to the company is therefore significant.

Time horizon

Long-term

Likelihood

Very unlikely

Magnitude of impact

Medium-high

Are you able to provide a potential financial impact figure?

Yes, a single figure estimate

Potential financial impact figure (currency)

100000000

Potential financial impact figure – minimum (currency)

<Not Applicable>

Potential financial impact figure – maximum (currency)

<Not Applicable>

Explanation of financial impact figure

If there was a 1% loss in company sales due to decreased demand for Berry products the inherent financial risk should we fail to notice or fail to take action, would be in the order of magnitude of \$100 million USD. If loss of sales was higher than 1% due to decreased demand, then the financial impact would be higher and more significant.

Cost of response to risk

0

Description of response and explanation of cost calculation

As part of our materiality assessment, we ask our key customers about their long-term vision for their products and partner with them to realize that vision. We would therefore not be blindsided by a shift, which we are not anticipating at this time. We also regularly monitor market trends, based on both external research, internal consumer research, and ultimately sales data - we would be one of the first to know if the market was shifting away from plastics. Additionally, we work with customers to educate them on the benefits of plastics. We also work in our communities as well as with trade associations to educate consumers on the benefits of plastics. There is no additional cost to managing these risks. It is done within the bandwidth of existing resources or included in activities that would be done anyway, such as marketing the benefits of our products and participating in trade associations that represent us on a broad range of issues.

Comment

Identifier

Risk 4

Where in the value chain does the risk driver occur?

Direct operations

Risk type & Primary climate-related risk driver

Acute physical	Increased severity and frequency of extreme weather events such as cyclones and floods
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Primary potential financial impact

Decreased revenues due to reduced production capacity

Climate risk type mapped to traditional financial services industry risk classification

<Not Applicable>

Company-specific description

Berry Global operates in some geographic regions that are at risk from extreme weather events such as flooding e.g. mainland European manufacturing facilities or drought e.g. African manufacturing facilities. For example, in 2014, one of our manufacturing sites in Bosnia was damaged by flooding caused by excessive rainfall. There are also areas of our supply chain where there is a risk involved such as suppliers within more vulnerable geographic regions and the transportation of our products through vulnerable regions which could result in non-delivery of products. In another example there were impairments of £5.2m and other costs related to a flood at the Troyes manufacturing facility in France, net of expected insurance proceeds and further costs and impairments related to its subsequent closure. Sales were adversely effected by the flood at the Troyes site which lost part of its French dairy business as a consequence. Although some continuity of supply was maintained by transferring business to alternative Berry sites, the flood damage was extensive and the loss of part of its business made the viability of the site untenable.

Time horizon

Medium-term

Likelihood

About as likely as not

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)

5000000

Potential financial impact figure – minimum (currency)

<Not Applicable>

Potential financial impact figure – maximum (currency)

<Not Applicable>

Explanation of financial impact figure

Any loss of business due to extreme weather events would adversely affect profit. Depending on the site involved it may vary. For example, there were impairments of £5.2m and other costs related to the flood at Troyes, net of expected insurance proceeds and further costs and impairments related to its subsequent closure. Sales were adversely affected by the flood at the Troyes (France) site, which lost part of its French dairy business as a consequence. Although some continuity of supply was maintained by transferring business to alternative Berry sites, the flood damage was extensive and the loss of part of its business made the viability of the site untenable.

Cost of response to risk

44000000

Description of response and explanation of cost calculation

The primary method to manage this risk is through insurance both for sites and product. The Group maintains alternative sources of supply wherever possible and if a problem is localised, in many cases it is possible to manufacture the product from another site within the Group. In addition sites have established protocols and procedures to ensure business continuity in the event of a major incident. As an example the manufacturing site in Bosnia that experienced damage from flooding invested in significantly raising the floor height of the production area to mitigate against future flood risk. For example, the cost to insure the European Berry business and the products it manufactures is significant, the 2018/19 financial statement records a figure of £44 million for insurance policies for this region.

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

Yes

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

Opp1

Where in the value chain does the opportunity occur?

Upstream

Opportunity type

Resource efficiency

Primary climate-related opportunity driver

Other, please specify

Primary potential financial impact

Other, please specify (Decreased raw material costs)

Company-specific description

As the world transitions to a low-carbon economy, it should greatly reduce the demand for fossil fuels, which in turn, should decrease their cost. IEA 2DS forecasts a transition away from fossil fuels, thereby reducing demand. Under this scenario, IEA forecasts prices for natural gas and oil to decrease vs. the Reference Technology Scenario (RTS). Plastics are Berry Global's primary raw material, which are derived mainly from natural gas as well as, to a lesser extent, oil. 2DS would therefore actually

put us in a better cost position than RTS. Furthermore, under 2DS, use of renewable energy significantly increases, which should continue to bring down the cost of renewable energy. This should lower our overall energy costs as more low cost; low carbon energy is put on the grid.

Time horizon

Long-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)

100000000

Potential financial impact figure – minimum (currency)

<Not Applicable>

Potential financial impact figure – maximum (currency)

<Not Applicable>

Explanation of financial impact figure

Our primary raw material, resin, is primarily produced from fossil fuels. As we transition to a low carbon economy, demand for fossil fuels should decrease, in turn decreasing their price. This should lower our raw material costs. Based on purchasing roughly 4.5 billion pounds per year of resin, a decrease in price of \$0.01/lb would equal \$45 million in decreased costs. Transition to a low carbon economy has the potential to drop the price of resin by much more than \$0.01/lb.

Cost to realize opportunity

0

Strategy to realize opportunity and explanation of cost calculation

For this specific opportunity, we would not need to do anything outside of our normal business activities. As evidence we can realize this opportunity, we have a long history offering products derived from fossil fuels. This is being done today, and would not require any changes or cost to realize opportunity.

Comment

Identifier

Opp2

Where in the value chain does the opportunity occur?

Downstream

Opportunity type

Products and services

Primary climate-related opportunity driver

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

Primary potential financial impact

Increased revenues resulting from increased demand for products and services

Company-specific description

For most of Berry Global's customers, Scope 3 GHG emissions represent the largest portion of their total GHG emissions. We anticipate that will drive demand for products with lower emissions intensity. Plastics are already very well positioned since they typically have lower GHG emissions per functional unit than alternatives. Furthermore, Berry has a long history of light-weighting our products - further reducing their carbon intensity. There is also significant work being done on the use of recycled content, which has lower associated GHG emissions than virgin resin. We currently commercially sell many products with recycled content, and that list is ever-expanding. An example where this opportunity has been realized is for beverage cups produced by Berry in North America. Berry converted a line of paper cups with a PS lid to PP cups, this resulted in a GHG emissions saving of 23% and a resin reduction of 12%.

Time horizon

Short-term

Likelihood

Very 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)

100000000

Potential financial impact figure – minimum (currency)

<Not Applicable>

Potential financial impact figure – maximum (currency)

<Not Applicable>

Explanation of financial impact figure

In a given year, the potential financial impact would most likely be on the order of magnitude of \$10 million USD. We do not expect all of our customers to change at once. We anticipate the transition will be relatively slow, which is why the impact in any given year will be modest compared to the size of our overall business.

Cost to realize opportunity

50000000

Strategy to realize opportunity and explanation of cost calculation

Many of our development work over the years has been related to offering lighter weight products - whether lighter than our existing products or alternative products made from heavier substrates such as paper, metal, and glass. Lightweighting has therefore been in our DNA since prior to sustainability or climate change being in our lexicon. This is because lighter parts typically cost less - a true triple bottom line success! Although our top line sales may decrease with lightweighting, by staying ahead of our competitors, we are able to gain market share, and typically improve margin. The total cost of research and development for Berry was \$50 million USD in FY2019. We do not disclose further detail about research spend, but the associated resources are very capable of realizing this opportunity.

Comment

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

Returns on investment in low-emission technology

Company-specific description

The cost of renewable energy continues to decrease every year. In deregulated markets, we have the potential to purchase energy from renewable energy projects. As costs continue to decrease, we will see more off-take agreements offered as a cost savings vs. conventional power. Depending on the nature of the off-take agreement, we may or may not own the renewable energy certificates (RECs), in which case we would also decrease our carbon risk.

Time horizon

Short-term

Likelihood

Very 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)

10000

Potential financial impact figure – minimum (currency)

<Not Applicable>

Potential financial impact figure – maximum (currency)

<Not Applicable>

Explanation of financial impact figure

Typical savings are on the order of magnitude of \$10,000 USD per year per site, depending on how much energy the site uses and the nature of the off-take agreement.

Cost to realize opportunity

0

Strategy to realize opportunity and explanation of cost calculation

We regularly issue competitive RFPs for energy in deregulated markets. To date, we have executed power purchase agreements enabling the generation of roughly 24,000 MWh/yr of renewable energy. Although we do not own the RECs for any of these projects, our off-take agreements enabled these projects to be built. We also monitor regulatory changes that would either allow or incentivize renewable energy. We are additionally working with a variety of groups, including the Renewable Energy Buyers Alliance, to encourage more options for procuring renewable energy. Another example of how we have attempted to encourage more options for renewable energy purchases is that we signed onto WWF's and WRI's Corporate Renewable Energy Buyers' Principles. There is no additional cost to managing these risks. It is done within the bandwidth of existing resources.

Comment

Identifier

Opp4

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

Other, please specify (Reduced exposure to GHG emissions and therefore less sensitivity to changes in cost of carbon)

Company-specific description

Berry Global is committed to reducing our energy consumption and lowering our carbon footprint by diversifying energy sources and procuring more low-carbon energy. In the reporting period 2018/19 approximately 2.4% of our total electricity has been identified as coming from renewable sources including sites in Spain and Brazil purchasing green energy tariffs for a renewable mix of wind and solar power and solar PV installations in the UK. Berry Global is putting processes in place to increase our renewable resource mix from electricity suppliers as we aim to report market based scope 2 emissions in the future. This involves encouraging sites to apply for green tariffs where possible, and to look into renewable energy installations on site, such as the use of solar panels on factories.

Time horizon

Long-term

Likelihood

Virtually certain

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)

2500000

Potential financial impact figure – minimum (currency)

<Not Applicable>

Potential financial impact figure – maximum (currency)

<Not Applicable>

Explanation of financial impact figure

Current cost related to carbon tax across Berry Global equates to approximately \$2.5 million with the current energy mix of 2.4% renewables, therefore there is an opportunity to reduce this cost by transitioning to low carbon electricity sources. With increases in carbon tax projected to be \$120/t CO2 2030 under a 2DS scenario this will become even more of an opportunity as carbon prices increase across the countries that Berry operates in.

Cost to realize opportunity

0

Strategy to realize opportunity and explanation of cost calculation

As part of the Impact 2025 sustainability strategy Berry Global has targets to increase renewable energy purchased, reduce GHG emissions and to improve energy efficiency. There is no additional cost to managing these risks. It is done within the bandwidth of existing resources.

Comment

C3. Business Strategy

C3.1

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

Yes

C3.1a

(C3.1a) Does your organization use climate-related scenario analysis to inform its strategy?

Yes, qualitative and quantitative

C3.1b

(C3.1b) Provide details of your organization’s use of climate-related scenario analysis.

Climate-related scenarios and models applied	Details
2DS	Berry Global used the 2DS climate-related scenario to model the impact on operations in comparison to business as usual. The results of this scenario analysis have been utilized in a number of ways. IEA 2DS, forecasts a transition away from fossil fuels, thereby reducing demand. Under this scenario, IEA forecasts prices for natural gas and oil to decrease vs. the Reference Technology Scenario (RTS). Plastics are the primary raw material of Berry Global, which are derived mainly from natural gas as well as, to a lesser extent, oil. 2DS would therefore actually put Berry Global in a better cost position than RTS. Furthermore, under 2DS, use of renewable energy significantly increases, which should continue to further reduce the cost of renewable energy. We believe this to be key in our goal to become carbon neutral. Results of the scenario analysis have informed the Berry Global business objectives and strategy directly by determining the extent of the target for GHG emissions in the Impact 2025 strategy which has been set at a 25% reduction in GHG emissions by 2025 from a 2016 baseline in line with 2DS. As a direct result of the 2DS and GHG reduction target set, the Berry Global energy reduction target has been increased and the capex available for energy reduction projects and sourcing of renewable energy has been increased for the next reporting year. This will drive a clear focus on energy and GHG reduction across the Berry Global business to ensure emissions reductions are in line with the 2DS modeled.

C3.1d

(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	Berry is proactively taking steps to reduce the climate impact of our products. It is our strategy to be a leader in the markets in which we participate. As a leader, we closely monitor consumer/customer preferences and develop products in response to demand. The Berry Global Impact 2025 sustainability strategy has been directly influenced by this with one of the three pillars of the strategy focused on the impact of products. In order to reduce the climate-related impact of our products the strategy has the following targets; 100% of packaging to be reusable, recyclable or compostable by 2025, to lightweight products, achieve 10% recycled content across fast-moving consumer goods packaging and to encourage the development of renewable materials. The time horizon for achieving these targets is by 2025. The most substantial strategic decision influenced by climate-related risk and opportunities made in this area to date was the acquisition of RPC Group in July 2019. The acquisition of RPC Group and Berry creates a leading global supplier of valued-added protective solutions and one of the world's largest plastic packaging companies. With the market focus on the reduced environmental impact of packaging the acquisition of RPC Group introduced plastic recycling facilities in to the Berry Global business, which will reduce the climate impact of raw material sourcing. The combination of both companies also provides opportunities to leverage the combined know-how in innovative material science, product development, and manufacturing technologies to reduce the climate impact of the Berry Global's products.
Supply chain and/or value chain	Yes	Growing pressure from consumers, customers and regulation to mitigate climate change has influenced the Berry Global strategy in relation to the supply and value chain in which the company operates. The Berry Global Impact 2025 sustainability strategy has been directly influenced by this with one of the three pillars of the strategy focused on partnerships. The overarching aim of this pillar of the strategy is to maximize positive impacts by engaging partners on key issues. Strategy has been influenced here by the need to reduce the climate related risks of our business that sit outside of our direct control such as, expanding and modernizing waste infrastructure to increase recovery and prevent plastic loss to the environment and to limit global warming by increasing the supply chain use of renewable energy and promoting science-based targets for GHG emissions. Although the timeline of the Berry Global Strategy is 2025 we see this as a much longer term strategy influence in order to drive reduced climate-related impacts of our supply and value chains. The most substantial strategic decision influenced by climate-related risk and opportunities made in this area to date are partnerships such as projects like the Pacific Northwest secondary sorting demonstration project, sponsored by Berry Global. This innovative project aims to capture the value of six additional streams of plastic recyclables which would have otherwise become waste, therefore reducing the climate impact of the associated plastic waste and also creating the opportunity for increased recycling and reduced climate impact of the need for virgin materials.
Investment in R&D	Yes	Strategy in the area of investment in R&D has been influenced by the recognition that in line with customer, consumer and regulatory pressures the Berry Global portfolio of products needs to adapt to mitigate climate-related risk. In light of this Investment in R&D has increased nearly 50% from 2015 \$33 million to \$50 million in 2019. R&D is an integral part of our long term strategy as a company. Increased R&D spend ensures that Berry Global remains at the forefront of product design and engineering. Investment in R&D can be linked directly to reputational risk as identified in the Berry Global Enterprise Risk Assessment and the risk related to the consumer perception of plastic driving a market change and reduction in demand for plastic products. Through an increased investment in R&D Berry Global is advancing the sustainability strategy to reduce the climate-related impact of products. One example of this is the expansion of the Verdant™ line of products, that incorporate post-consumer recycled (PCR) material. The Verdant line™ offers tubes, bottles, jars and closures using the latest PCR materials and some of the most innovative technologies. During the reporting year this line was expanded to extruded tubes available with up to 25% PCR. This example of investment in R&D in Berry's products not only helps to mitigate against climate-related risks but provides an opportunity to enter new markets with innovative products which reduces the impact on the climate.
Operations	Yes	Climate-related risks and opportunities have directly influenced the Berry Global strategy. One of the 3 pillars of the Berry Global Impact 2025 sustainability strategy is related to minimizing the environmental impact of operations. As a large manufacturing business with over 290 global operational facilities there is a clear need to focus on risks and opportunities related to climate in this area. The Impact 2025 strategy has a target to reduce GHG emissions by 25% by 2025 and energy consumption as a complementary target to this. The initial time horizon for this achievement is 2025 although GHG emissions reduction and energy efficiency are long term ambitions with the ultimate goal of the company to be carbon neutral in the future. A case study of a strategic decision made in this area is the move to renewable energy sourcing for Berry Global operations where possible with one of the first countries to act on this being Brazil where 48% if the electricity consumption for Berry facilities is now sourced from renewable energy. This reduces our climate related risk in relation to GHG emissions and also long term availability of fossil fuels.

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	Revenues Direct costs Capital expenditures Assets	Financial planning has been influenced in the areas of revenue, direct costs, capital expenditures and assets. As an example for direct costs, Berry Global operates in an energy intensive sector which has high associated emissions and energy represents a significant portion of our raw material costs in addition to utility costs. Part of the Berry Global budgeting process includes anticipating energy prices, with carbon pricing being an influential element of this. As part of the financial planning process for energy, carbon pricing across all countries where Berry Global has facilities is analysed to inform budgets. Through these process risk countries can be identified where carbon taxes are increasing and therefore energy costs will increase, however increased carbon taxes and therefore energy process provide us with more of an economic opportunity to explore other sources of energy such as renewables which will have a lower GHG impact. Carbon pricing has been considered on a long term time horizon to 2030 with projections available to this timescale and the potential financial impact has been mapped for all countries Berry operates in.

C3.1f

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

C4. Targets and performance

C4.1

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

Intensity target

C4.1b

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

Target reference number

Int 1

Year target was set

2017

Target coverage

Company-wide

Scope(s) (or Scope 3 category)

Scope 1+2 (location-based)

Intensity metric

Metric tons CO2e per metric ton of product

Base year

2016

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

0.748

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

100

Target year

2025

Targeted reduction from base year (%)

25

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

0.561

% change anticipated in absolute Scope 1+2 emissions

25

% change anticipated in absolute Scope 3 emissions

0

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

0.635

% of target achieved [auto-calculated]

60.427807486631

Target status in reporting year

Underway

Is this a science-based target?

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

Please explain (including target coverage)

Our primary lever for directly influencing this GHG emissions target is to reduce our energy intensity. We have a target to reduce our Scope 1+2 GHG emissions intensity 25% by 2025 versus our 2016 baseline., with the denominator is metric tons processed. We believe this would also lead to an absolute reduction of GHG emissions of around 15%. However, we squired RPC Group in 2019 which increased our overall emissions by around 40%, and, taking this into account we would expect to achieve our intensity target but the overall increase in emissions from 2016-2025 would be around 25%. We expect to revise this target with a new post-acquisition baseline in the near future. The revised target will address absolute emissions to meet the science-based target criteria in line with a 1.5 degree world. This goal covered 100% of our in-scope emissions. with only de minimis sources excluded.

C4.2

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

No other climate-related targets

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	11	0
To be implemented*	1	3.2
Implementation commenced*	1	8
Implemented*	11	1119
Not to be implemented	10	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	Process optimization
---	----------------------

Estimated annual CO2e savings (metric tonnes CO2e)

63.7

Scope(s)

Scope 2 (location-based)

Voluntary/Mandatory

Voluntary

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

8270

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

10000

Payback period

1-3 years

Estimated lifetime of the initiative

6-10 years

Comment

Air Compressor fitted that now switches from 150 hp to 25 hp during "shut down" periods of production, reducing compressed air by 125hp, which saves 90 KW per hour, and \$8270 per year.

Initiative category & Initiative type

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

Estimated annual CO2e savings (metric tonnes CO2e)

550

Scope(s)

Scope 1

Voluntary/Mandatory

Voluntary

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

12000

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

0

Payback period

<1 year

Estimated lifetime of the initiative

6-10 years

Comment

Manufacturing changes meant only 4 machines were used instead of 5, so the compliance level for temperature control was 9% lower. This reduction in temperature meant Natural Gas input could be reduced by 757,000 btu per year, saving 550 tonnes of CO2e. The cost of this change was free, and also saved \$12,000 per year.

Initiative category & Initiative type

Energy efficiency in buildings	Lighting
--------------------------------	----------

Estimated annual CO2e savings (metric tonnes CO2e)

373.65

Scope(s)

Scope 2 (location-based)

Voluntary/Mandatory

Voluntary

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

70000

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

120000

Payback period

1-3 years

Estimated lifetime of the initiative

11-15 years

Comment

Installation of new LED Lighting across 5 sites. All sites' lighting improvements had a payback period of between 1 and 3 years, with average payback of 1.8 years. The total KWH saved across the sites was 1,320,000, which equated to 373.65 tonnes of CO2e.

Initiative category & Initiative type

Company policy or behavioral change	Other, please specify (Energy awareness and conservation initiatives)
-------------------------------------	---

Estimated annual CO2e savings (metric tonnes CO2e)

113

Scope(s)

Scope 1

Scope 2 (location-based)

Voluntary/Mandatory

Please select

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

25000

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

0

Payback period

<1 year

Estimated lifetime of the initiative

6-10 years

Comment

In 2019 Berry Global ran a company wide energy awareness training and implemented 400 new daily energy practices across plants. These new practices included energy conservation and energy waste identification and elimination. The practices drove a reduction in 400,000 KWH, saving \$25,000 and 113 tonnes CO2e a year.

C4.3c

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

Method	Comment
Internal incentives/recognition programs	The primary drivers for decreasing emissions is our electricity, natural gas, and greenhouse gas reduction goals. These corporate level goals roll down to each division and each plant. It is then up to each plant to determine what investment is necessary to meet the goal. Plants are recognized both for meeting their goals as well as for implementing projects toward the goals.
Financial optimization calculations	We regularly stress the cost of energy and that those costs can be reduced by reducing energy consumption. All of our sites are therefore motivated to reduce energy consumption not only for the environmental benefits but also the financial benefits.
Internal price on carbon	A shadow price for carbon has been implemented to raise awareness of the potential costs of GHG emissions and drive efforts to reduce GHG emissions.
Compliance with regulatory requirements/standards	Targets set by compliance schemes such as the Climate Change Agreement for UK sites or targets set as part of the ISO 50001 accreditation drives emissions reduction activities.
Dedicated budget for energy efficiency	Manufacturing sites across Berry set energy efficiency budgets on an annual basis from which projects are generated.
Employee engagement	Employee engagement has been increased in regards to energy efficiency through the implementation of the Berry Global sustainability strategy as well as initiatives such as the increased uptake of ISO 50001 across the company, which requires employee engagement and training on energy use and efficiency.

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

Company-wide

Description of product/Group of products

Plastic products

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

Low-carbon product and avoided emissions

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

Other, please specify (Carbon Footprinting)

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

100

% of total portfolio value

<Not Applicable>

Asset classes/ product types

<Not Applicable>

Comment

Our climate change strategy is influenced by the need to adapt and innovate to maintain our business stance as a provider of low carbon and low environmental impact plastic solutions and to develop opportunities for our customers that reduce the climate impact of the products that they use. Short term strategy is focused on innovation of our products and the materials we use to manufacture our packaging and non-packaging items and to reduce the carbon impact of these. This is done in a number of ways by: 1. Using recycled content: The availability of recycled plastics which we can incorporate back into products has been a major focus over the last few years resulting in a number of products with recycled content. This will continue to be both a short and long term strategy to incorporate higher levels of recycled plastics into the plastic products that we manufacture. 2. Lightweighting: reducing the amount of resources required to manufacture plastic products reduces the carbon impact throughout the lifecycle. We take care in this area to reduce weight without any negative impacts on product protection throughout the rest of the lifecycle. 3. Product protection: innovation in multi-layer barrier packaging technology means that products have a long shelf life and reduces food waste throughout the supply chain and in the consumer's home which has a major environmental impact. 4. Using bio based material: The use of bio based materials which utilize renewable raw materials has been developed for specific applications in the Group and can reduce the carbon footprint of packaging. External Life-cycle analysis and carbon footprinting also highlight the low-carbon benefits of just simply using plastic over other materials. TruCost published a study called "Plastics and Sustainability: A Valuation [...] for Continuous Improvement". In this study, they found plastic products to have 61% lower contributions to climate change than plastic alternatives (metal, glass, paper, etc.). Franklin Associates reached a similar conclusion in their Life Cycle Assessment "IMPACT OF PLASTICS PACKAGING [...] IN THE UNITED STATES AND CANADA: Substitution Analysis", which found plastic packaging had 56% lower GHG emissions than alternatives based on the substitution method.

C5. Emissions methodology

C5.1

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

Scope 1

Base year start

October 1 2016

Base year end

September 30 2017

Base year emissions (metric tons CO2e)

153655

Comment

Scope 2 (location-based)

Base year start

October 1 2016

Base year end

September 30 2017

Base year emissions (metric tons CO2e)

1260888

Comment

Scope 2 (market-based)

Base year start

October 1 2018

Base year end

September 30 2019

Base year emissions (metric tons CO2e)

2068945

Comment

This is the first year reporting a market-based emissions value.

C5.2

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

Defra Voluntary 2017 Reporting Guidelines

IEA CO2 Emissions from Fuel Combustion

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

C6. Emissions data

C6.1

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

Reporting year

Gross global Scope 1 emissions (metric tons CO2e)

309285

Start date

<Not Applicable>

End date

<Not Applicable>

Comment

C6.2

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

Row 1

Scope 2, location-based

We are reporting a Scope 2, location-based figure

Scope 2, market-based

We are reporting a Scope 2, market-based figure

Comment

C6.3

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

Reporting year

Scope 2, location-based

2131343

Scope 2, market-based (if applicable)

2068945

Start date

<Not Applicable>

End date

<Not Applicable>

Comment

C6.4

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

No

C6.5

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

Purchased goods and services

Evaluation status

Relevant, calculated

Metric tonnes CO2e

8874487

Emissions calculation methodology

Emissions for all purchased raw material calculated by multiplying purchased tonnage by relevant emissions factor. Included in this figure is also emissions for Purchased water, calculated by multiplying water use by emissions factors for Water Supply and Water Treatment.

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

0

Please explain

DEFRA 2019 Emission factors used.

Capital goods

Evaluation status

Relevant, calculated

Metric tonnes CO2e

597939

Emissions calculation methodology

Used Quantis Scope 3 evaluator to calculate GHG emissions based on our Capital Goods spend.

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

0

Please explain

Capital goods calculation done through Quantis Scope 3 calculator.

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

Evaluation status

Relevant, calculated

Metric tonnes CO2e

548353

Emissions calculation methodology

Multiplied electricity purchases by emission factor for WTT, T&D and WTT T&D, and Fuel purchases by WTT emissions factors.

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

0

Please explain

DEFRA 2019 Emission factors used.

Upstream transportation and distribution

Evaluation status

Relevant, calculated

Metric tonnes CO2e

102366

Emissions calculation methodology

Average delivery distance and transport method calculated for all purchased pellet, and GHG emissions calculated by multiplying purchase pellet amount by distance, and relevant emission factor for each transport method.

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

0

Please explain

DEFRA 2019 Emission factors used.

Waste generated in operations

Evaluation status

Relevant, calculated

Metric tonnes CO2e

8766

Emissions calculation methodology

Input total tonnage of MSW to landfill into EPA Warm model to calculate GHG Emissions.

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

0

Please explain

EPA Warm model program used.

Business travel

Evaluation status

Relevant, calculated

Metric tonnes CO2e

13879

Emissions calculation methodology

Emissions calculations completed by travel companies used (Avis/Budget, Travel Leaders, National/Enterprise).

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

100

Please explain

All emissions calculated by travel providers.

Employee commuting

Evaluation status

Relevant, calculated

Metric tonnes CO2e

14993

Emissions calculation methodology

Assumption that on average an employee commutes 10 miles per day, by car.

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

0

Please explain

Assumptions made, and DEFRA 2019 Emissions factor used for car.

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

Berry Global has no upstream leased assets.

Downstream transportation and distribution

Evaluation status

Relevant, calculated

Metric tonnes CO2e

331475

Emissions calculation methodology

Total Weight and Mileage collected for all downstream transportation and distribution, and GHG emissions calculated.

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

100

Please explain

Emissions factors used are based on the exact vehicles used.

Processing of sold products

Evaluation status

Not relevant, explanation provided

Metric tonnes CO2e

<Not Applicable>

Emissions calculation methodology

<Not Applicable>

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

<Not Applicable>

Please explain

Energy use during processing is de-minimis for Berry Global goods, and therefore has not been deemed not relevant.

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

Berry Global products do not use energy during use.

End of life treatment of sold products

Evaluation status

Relevant, calculated

Metric tonnes CO2e

42648

Emissions calculation methodology

Total pellet purchased multiplied by emissions factor based on countries EOL (End Of Life) split

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

0

Please explain

Emission Factors data for EOL option, DEFRA 2019.

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

Berry Global has no downstream leased assets

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

Berry Global has no franchises

Investments

Evaluation status

Not relevant, explanation provided

Metric tonnes CO2e

<Not Applicable>

Emissions calculation methodology

<Not Applicable>

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

<Not Applicable>

Please explain

Berry Global does not have investments

Other (upstream)

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

No other relevant upstream emissions

Other (downstream)

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

No other relevant downstream emissions

C6.7

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

No

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

5162

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

2440628

Metric denominator

unit total revenue

Metric denominator: Unit total

12600000000

Scope 2 figure used

Location-based

% change from previous year

2

Direction of change

Decreased

Reason for change

Implemented a number of energy efficiency and energy reduction initiatives across the company, as outlined in section 4.3

Intensity figure

0.64

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

2440628

Metric denominator

metric ton of product

Metric denominator: Unit total

3842374

Scope 2 figure used

Location-based

% change from previous year

1.5

Direction of change

Decreased

Reason for change

Implemented a number of energy efficiency and energy reduction initiatives across the company, as outlined in section 4.3

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	307808	IPCC Fourth Assessment Report (AR4 - 100 year)
CH4	369	IPCC Fourth Assessment Report (AR4 - 100 year)
N2O	1108	IPCC Fourth Assessment Report (AR4 - 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)
Argentina	25
Australia	5
Belgium	194
Canada	6489
Colombia	257
Czechia	957
Denmark	14
Estonia	88
France	12491
Germany	27702
Iceland	381
India	9911
Italy	2271
Mexico	1951
Netherlands	10843
China	7794
Philippines	49
Poland	2325
Romania	42
Russian Federation	708
Slovakia	130
South Africa	107
Spain	783
Sweden	1
Thailand	52
Tunisia	14
United Kingdom of Great Britain and Northern Ireland	5975
United States of America	217726

C7.3

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

By business division

C7.3a

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

Business division	Scope 1 emissions (metric ton CO2e)
Consumer Packaging	20254
Engineered Materials	31263
Health, Hygiene & Specialties	188796
Consumer Packaging International	68972

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)
Argentina	13260	13260	34416	0
Australia	4376	4376	5775	0
Belgium	15897	5167	69921	0
Brazil	15044	10637	95837	28078
Canada	2963	2963	64816	0
Colombia	8024	8024	39818	0
Czechia	7226	8382	13809	0
Denmark	7223	15806	41270	0
Estonia	5809	5547	5654	0
Finland	679	1517	6317	0
Germany	145636	145791	323213	0
China, Hong Kong Special Administrative Region	27	27	37	0
Iceland	4	4	18969	0
India	12975	12975	16732	0
Italy	19840	22556	57688	0
Mexico	44154	44154	95774	0
Netherlands	52126	31298	106196	0
Norway	198	11570	22250	0
China	145110	145110	209906	0
Philippines	6202	6202	10054	0
Poland	66034	77637	90029	0
Romania	6563	6563	19225	0
Russian Federation	3255	3255	8220	0
Slovakia	2475	506	14596	0
South Africa	37768	37768	37965	0
Spain	32153	24911	109251	21918
Sweden	411	1886	37715	0
Switzerland	8	8	314	0
Thailand	4831	4831	9404	0
Tunisia	1486	1486	3167	0
United Kingdom of Great Britain and Northern Ireland	146514	98247	416534	0
United States of America	1308899	1308899	2736532	0
France	14173	7582	304220	0

C7.6

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

By business division

C7.6a

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

Business division	Scope 2, location-based (metric tons CO2e)	Scope 2, market-based (metric tons CO2e)
Consumer Packaging	651734	651734
Engineered Materials	353226	353226
Health, Hygiene & Specialties	444306	439899
Consumer Packaging International	682077	624086

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		<Not Applicable>		
Other emissions reduction activities	1119	Decreased	0.07	1119 Tonnes of GHG Emissions reduce from Emissions reduction activities mentioned in section C4 / the emissions from the previous reporting period (1677526) *100 = 0.07% decrease
Divestment		<Not Applicable>		
Acquisitions	750869	Increased	44.76	750869 Tonnes of GHG Emissions from acquisitions since the previous reporting period. 750869 / the emissions from the previous reporting period (1677526) *100 = 44.76% increase
Mergers		<Not Applicable>		
Change in output	11114	Increased	0.66	11114 Tonnes of GHG Emissions from Increased output in the 2019 reporting period compared to 2018 / the emissions from previous reporting period (1677526) *100 = 0.66% increase
Change in methodology		<Not Applicable>		
Change in boundary		<Not Applicable>		
Change in physical operating conditions		<Not Applicable>		
Unidentified		<Not Applicable>		
Other		<Not Applicable>		

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?

Location-based

C8. Energy

C8.1

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

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

C8.2

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

	Indicate whether your organization undertook this energy-related activity in the reporting year
Consumption of fuel (excluding feedstocks)	Yes
Consumption of purchased or acquired electricity	Yes
Consumption of purchased or acquired heat	No
Consumption of purchased or acquired steam	Yes
Consumption of purchased or acquired cooling	No
Generation of electricity, heat, steam, or cooling	No

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)	LHV (lower heating value)	0	1316536	1316536
Consumption of purchased or acquired electricity	<Not Applicable>	49996	4975629	5025625
Consumption of purchased or acquired heat	<Not Applicable>	<Not Applicable>	<Not Applicable>	<Not Applicable>
Consumption of purchased or acquired steam	<Not Applicable>	0	250041	250041
Consumption of purchased or acquired cooling	<Not Applicable>	<Not Applicable>	<Not Applicable>	<Not Applicable>
Consumption of self-generated non-fuel renewable energy	<Not Applicable>	<Not Applicable>	<Not Applicable>	<Not Applicable>
Total energy consumption	<Not Applicable>	49996	6542206	6592202

C8.2b

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

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

LHV (lower heating value)

Total fuel MWh consumed by the organization

1269433

MWh fuel consumed for self-generation of electricity

<Not Applicable>

MWh fuel consumed for self-generation of heat

<Not Applicable>

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

0.18396

Unit

kg CO2e per kWh

Emissions factor source

Greenhouse Gas Reporting: conversion factors 2019 - DEFRA

Comment

Fuels (excluding feedstocks)

Gas Oil

Heating value

LHV (lower heating value)

Total fuel MWh consumed by the organization

5961

MWh fuel consumed for self-generation of electricity

<Not Applicable>

MWh fuel consumed for self-generation of heat

<Not Applicable>

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

2.97049

Unit

kg CO2e per liter

Emissions factor source

Greenhouse Gas Reporting: conversion factors 2019 - DEFRA

Comment

Fuels (excluding feedstocks)

Kerosene

Heating value

LHV (lower heating value)

Total fuel MWh consumed by the organization

2124

MWh fuel consumed for self-generation of electricity

<Not Applicable>

MWh fuel consumed for self-generation of heat

<Not Applicable>

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

2.53627

Unit

kg CO2e per liter

Emissions factor source

Greenhouse Gas Reporting: conversion factors 2019 - DEFRA

Comment

Fuels (excluding feedstocks)

Liquefied Petroleum Gas (LPG)

Heating value

LHV (lower heating value)

Total fuel MWh consumed by the organization

7878

MWh fuel consumed for self-generation of electricity

<Not Applicable>

MWh fuel consumed for self-generation of heat

<Not Applicable>

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

1.51906

Unit

kg CO2e per liter

Emissions factor source

Greenhouse Gas Reporting: conversion factors 2019 - DEFRA

Comment

Fuels (excluding feedstocks)

Fuel Oil Number 6

Heating value

LHV (lower heating value)

Total fuel MWh consumed by the organization

2750

MWh fuel consumed for self-generation of electricity

<Not Applicable>

MWh fuel consumed for self-generation of heat

<Not Applicable>

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

3.17799

Unit

kg CO2e per liter

Emissions factor source

Greenhouse Gas Reporting: conversion factors 2019 - DEFRA

Comment

Fuels (excluding feedstocks)

Coal

Heating value

LHV (lower heating value)

Total fuel MWh consumed by the organization

28028

MWh fuel consumed for self-generation of electricity

<Not Applicable>

MWh fuel consumed for self-generation of heat

<Not Applicable>

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

0.3493

Unit

kg CO2e per KWh

Emissions factor source

Greenhouse Gas Reporting: conversion factors 2019 - DEFRA

Comment

Fuels (excluding feedstocks)

Diesel

Heating value

LHV (lower heating value)

Total fuel MWh consumed by the organization

360

MWh fuel consumed for self-generation of electricity

<Not Applicable>

MWh fuel consumed for self-generation of heat

<Not Applicable>

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

0.24462

Unit

kg CO2e per KWh

Emissions factor source

Greenhouse Gas Reporting: conversion factors 2019 - DEFRA

Comment

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, supported by energy attribute certificates

Low-carbon technology type

Low-carbon energy mix

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

Spain

MWh consumed accounted for at a zero emission factor

21918

Comment

Sourcing method

Unbundled energy attribute certificates, Renewable Energy Certificates (RECs)

Low-carbon technology type

Low-carbon energy mix

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

Brazil

MWh consumed accounted for at a zero emission factor

28077.78

Comment

C9. Additional metrics

C9.1

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

Description

Waste

Metric value

0.72

Metric numerator

Tonnes of Waste

Metric denominator (intensity metric only)

Production tonnage

% change from previous year

20.8

Direction of change

Decreased

Please explain

Tonnes of waste per Tonnes produced was 0.91 in the previous reporting period. This reporting period it is 0.72, which represents a 20.8% decrease in waste metric in this reporting period. This is due to a number of initiatives to reduce waste across our sites.

Description

Energy usage

Metric value

6.18

Metric numerator

Gigajoules of Energy

Metric denominator (intensity metric only)

Production Tonnage

% change from previous year

6.4

Direction of change

Decreased

Please explain

Energy use per tonne produced was 6.6 in the previous reporting period. This reporting period it is 6.18, which represents a 6.4% decrease in energy use metric in this reporting period. This is due to a number of initiatives to reduce unnecessary energy use across our sites.

C10. Verification

C10.1

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

	Verification/assurance status
Scope 1	No third-party verification or assurance
Scope 2 (location-based or market-based)	No third-party verification or assurance
Scope 3	No third-party verification or assurance

C10.2

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

No, but we are actively considering verifying within the next two years

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, and we do not anticipate being regulated in the next three years

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?

Yes

C11.3a

(C11.3a) Provide details of how your organization uses an internal price on carbon.

Objective for implementing an internal carbon price

Navigate GHG regulations
Change internal behavior
Drive energy efficiency
Drive low-carbon investment
Stress test investments

GHG Scope

Scope 1
Scope 2
Scope 3

Application

The analysis is performed at the facility level and then rolled up to the division and corporate level.

Actual price(s) used (Currency /metric ton)

120

Variance of price(s) used

The least aggressive estimates used are that anticipate current carbon prices will stay flat. The most aggressive scenario used assumes a global price of carbon of \$120/MT CO₂ by 2030. This is based on IEA's and IRENA's estimate of \$120/MT in OECD countries by 2030.

Type of internal carbon price

Shadow price

Impact & implication

At this time, the analysis is primarily being done to 1) better understand potential risk, and 2) increase awareness of potential energy price inflation driven by increased carbon pricing. This was the first year the analysis was done. It has not yet impacted any business decisions, but it has definitely increased awareness.

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

(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

10

% total procurement spend (direct and indirect)

80

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

69

Rationale for the coverage of your engagement

Our supplier engagement focuses on our top 100 suppliers. Strategically these are our most important suppliers, and they represent the vast majority of our spend.

Impact of engagement, including measures of success

At Berry we have increased supplier engagement on greenhouse gas emissions. We now require annual reporting of Scope 1&2 GHG emissions as well as information on whether suppliers have a science based GHG reduction target. This is measured through our supplier portal, which greatly increases participation and compliance as it is a requirement for raw materials and suppliers of Berry to complete. The measure of success has historically been the percentage of suppliers that respond. With increased engagement, we are now evaluating additional metrics that could be implemented. One impact of engagement and collaboration with suppliers that directly influences our Scope 3 GHG emissions is the increased use of post-consumer recycled plastic. In the 2018/19 reporting year Berry purchased 70,000 metric tonnes of recycled plastic which equated to a carbon saving of over 60,000 tonnes CO2e in comparison to the purchase of virgin plastic.

Comment

C12.1b

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

Type of engagement

Education/information sharing

Details of engagement

Run an engagement campaign to educate customers about the climate change impacts of (using) your products, goods, and/or services

% of customers by number

100

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

53

Portfolio coverage (total or outstanding)

<Not Applicable>

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

Berry Global's customers have significant control over the design choices and climate change impact related to the packaging supplied to them which can be positively influenced by an increased awareness of the impacts of design and material choices. During the past year we have initiated a webinar programme for our customers on topics such as design for the circular economy and chemical recycling. These webinars are open to all of our customers and engagement is sought through direct customer communications and advertisement of the webinars on social media and the Berry Global website. Alongside the webinar programme we also work with customers to educate them about the benefits of our products. One of the benefits of plastic is the lightweighting that can be achieved to reduce the associated GHG emissions of a product.

Impact of engagement, including measures of success

Through the Berry Global webinars customers gain a greater understanding of the changes they can make to their products to reduce their climate impact. Success of webinars is measured through engagement (number of attendees) and also on any follow up discussions that occur as a result of webinars. Ultimate success is measured in terms of increased sales of climate-advantaged products.

C12.1d

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

As a plastics converter, Berry Global represents just one part of a much larger supply chain which ranges from raw material suppliers to the waste and resource management services that handle our products at the end of their lifecycle. As a result, it is not always possible for us to work in isolation to make advancements in areas that impact across the supply chain. In addition to our customers and suppliers, we therefore seek to collaborate with relevant international organisations, trade associations, charities and nongovernmental organisations that are involved with the plastic supply chain. This allows us to provide input into legislative changes and to work in partnership on areas such as educational initiatives. Engagement activities throughout the rest of the supply chain are treated as equal priorities, we see the value in engaging with all aspects of the supply chain.

As well as those directly involved in our supply chain, we are also involved with many external organisations whose work impacts and influences our business activities related to sustainability and climate change. Liaising with non-governmental organisations (NGOs), for example, gives us the opportunity to highlight the need for the establishment of a more standardized system for the collection of materials for recycling. We can provide advice for best practice design and manufacturing for the circular economy, such as our work with the Ellen MacArthur Foundation. At individual site level, we regularly get involved with schools and colleges both to provide information and education on plastics' role in our world and to promote career opportunities within the Group and the wider industry. We regularly meet with legislators and other opinion formers to ensure they have a greater understanding of our operations. This also enables us to provide input into discussions surrounding any proposed legislative or regulatory developments.

Success can be measured by positive outcomes achieved during the reporting year. This includes educating our supply chain on environmental and climate change topics. To educate around the role of plastics in today's environmentally-focused world, we provide

regular support such as visits to our factories and training facilities for those in the supply chain or indirectly related to the supply chain such as educational visits. We have held a number of webinars on climate and sustainability related topics and updated the sustainability area of the Berry Global website to increase education on this topic.

Success can also be measured through our increased engagement with organisations during the reporting year. During the 2019/20 reporting year Berry Global became a signatory of the Ellen MacArthur Global commitment and also the Alliance to End Plastic Waste, both organisations with a primary focus to reduce the climate related impact of plastic and packaging by driving circular economies. We are also now represented on the boards of RecyClass, the international design tool for checking the recyclability of plastic packaging, and The Polyolefin Circular Economy Platform (PCEP), established by the European plastics industry to encourage and support strong value chain cooperation in the advancement of the circular economy. We have also become actively involved in The Circular Plastics Alliance (CPA), set up in 2019 by the European Commission, to drive plastic recycling of plastics across Europe.

An example of our engagement with the wider supply chain is Berry Global's engagement with policy makers and influencers, particularly in Europe, to explain and demonstrate how, used in the correct way, plastic can still be a force for good. One of the most effective ways is to show people around our factories so they can see our operations at first hand and talk to the people involved. Equally important, local politicians have the opportunity to witness the wider working environment and business practices of a major employer in their area. Plastic, environment and sustainability were key topics when three Danish politicians visited the Berry Superfos Stilling site in Denmark, where they were able to experience the modern production of plastic packaging through a tour of the factory floor as well as conversations with employees and management. The purpose was to learn more about plastic and sustainability in connection with the new national plastic plan which was to be adopted by the Danish parliament.

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?

Trade associations

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

Plastics Industry Association

Is your position on climate change consistent with theirs?

Consistent

Please explain the trade association's position

The Plastics Industry Association encourages reduced impacts on natural resources, minimized waste generation, and a shift toward renewable energy; all of which reduces greenhouse gas impacts. They also encourage policy decisions to be guided by scientific data that measures the impacts of products over their lifecycle.

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

We worked with the Plastics Industry Association to craft their position statement.

C12.3f

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

Berry generally does not get involved with policy. Our engagements primarily consist of signing onto support letters. Most policy interactions are specifically targeted toward increasing the availability of recycling or renewable energy and are driven by the sustainability department, which easily ensures alignment.

Since Berry does not generally get involved with policy, any decisions to get involved are approved by the CEO, whom is very familiar with our climate strategy.

C12.4

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

Publication

In mainstream reports

Status

Complete

Attach the document

Berry-2019-GRI-Index-Web.pdf

Page/Section reference

9-13

Content elements

Governance

Strategy

Risks & opportunities

Emissions figures

Emission targets

Other metrics

Comment

C15. Signoff

C-FI

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

C15.1

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

	Job title	Corresponding job category
Row 1	Chairman & Chief Executive Officer	Chief Executive Officer (CEO)

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