Welcome to your CDP Climate Change Questionnaire 2020

C0. Introduction

C0.1

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

Founded in 1979, Seagate is a leading provider of hard drives and data storage solutions. From the videos, music and documents we share with friends and family on social networks, to servers that form the backbone of enterprise data centers and cloud-based computing, to desktop and notebook computers that fuel our personal productivity, Seagate products help more people store, share and protect their valuable digital content. Seagate offers the industry's broadest portfolio of hard disk drives, solid-state drives and solid-state hybrid drives. In addition, the company offers an extensive line of retail storage products for consumers and small businesses, along with data-recovery services for any brand of hard drive and digital media type. Seagate employs approximately 42,000 people around the world.

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
Reporting year	January 1, 2019	December 31, 2019	No

C0.3

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

China
India
Malaysia
Singapore
Thailand
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
Chief Executive Officer (CEO)	Our CEO has overall responsibility for climate change. Responsibility for climate-related issues has been assigned to our CEO because it is an integral part of our business strategy and the CEO is responsible for our overall business strategy. As an organization, Seagate has defined its values as: integrity, innovation, and inclusion. These values guide how we run our business. Integrity covers people, planet and profit, and climate-related issues fall under the planet portion of this triple bottom line. Our CEO decided to set a science-based target and was approved through the Science Based Targets Initiative in 2019.

C1.1b

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

Frequency with which climate-related issues are a scheduled agenda item	Governance mechanisms into which climate-related issues are integrated	Please explain
Scheduled – some meetings	Reviewing and guiding strategy	Our CEO briefs the Board of Directors on climate change and sustainability issues on a quarterly basis to both review and guide Seagate's strategy on these issues.

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)	Responsibility	Frequency of reporting to the board on climate-related issues
Other C-Suite Officer, please specify Senior Vice President of business excellence	Both assessing and managing climate-related risks and opportunities	Quarterly
Environment/ Sustainability manager	Both assessing and managing climate-related risks and opportunities	As important matters arise
Process operation manager	Both assessing and managing climate-related risks and opportunities	As important matters arise
Facility manager	Both assessing and managing climate-related risks and opportunities	As important matters arise

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).

As an industry leader, Seagate is committed to developing and maintaining sustainable, responsible practices in its global operations. In line with this, our business strategy, specifically our product development and modification process, takes into consideration the potential implications of climate change. At Seagate, global citizenship is not about doing what is required of us — it is about acting on our responsibility to be stewards of our planet, and to conduct business in the best interest of our stakeholders.

i. The incorporation of climate change into our business strategy is overseen by Seagate's Senior Vice President ("other C-Suite" in the C1.2 dropdown) who reports directly to the CEO quarterly on climate-related issues to then brief the board. This role is supported by our sustainability department in efforts to establish the company's climate change and sustainability strategies, ensure adherence to laws, ethical standards and international norms and embrace responsibility for how the company's activities affect stakeholders. The sustainability department is comprised of:
a. Seagate's senior director responsible for sustainability ("Environment/Sustainability manager" in the C1.2 dropdown) oversees communication between the Sustainability department and the CEO as they relate to climate issues.

b. The Sustainability Manager ("process operation manager" in the C1.2 dropdown) reports to the senior director and collects the information across facilities to track company-level sustainability KPIs.
c. Facility Managers have responsibility for tracking and managing environmental impacts through measuring KPIs daily, including greenhouse gas emissions, waste generation, as well as water withdrawal, consumption and discharge.

ii. Responsibility for climate- and sustainability-related issues has been assigned to our Senior Vice President responsible for business excellence because it is an integral part of our business strategy. Seagate's organizational values are: Integrity, Innovation and Inclusion. These values guide how we run our business. The Integrity value covers People, Planet and Profit, and GHG is an aspect under Planet. Climate-related issues are monitored primarily through facility-level data collection and product life cycle assessments (LCAs). For our facilities, Seagate collects facility-level GHG, waste, and water data monthly. The data collected is used to inform our GHG and water inventories, track and set climate- and sustainability-related goals and assess performance over time. We also layer environmental data with risk assessment tools, such as WRI Aqueduct, to better understand the risks associated with our resource uses. Seagate uses a variety of different materials to make its products. We strive for a complete understanding of material and chemical content in order to appropriately manage the product environmental impacts. To achieve this, Seagate works with suppliers to obtain full disclosures on every part and material included in our drives. This information is maintained in a database and is accessible as new material and chemical concerns arise. This detailed material information feeds into our LCAs, which help us understand the environmental impacts of our products.

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	Seagate offers positive incentives for management of climate-related issues.

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 inventivized	Comment
Other C-Suite Officer	Monetary reward	Emissions reduction target	Executive bonus is tied to performance on GHG and water reduction targets, which are key metrics within the Senior VP of Business Excellence's department. The Senior VP of Business Excellence reports

			to the CEO and is considered by Seagate to be a C-suite officer.
Environment/Sustainability manager	Monetary reward	Emissions reduction target Supply chain engagement	Our senior director responsible for sustainability is involved in setting the emissions reduction targets, reporting progress against the targets, and supply chain engagement. Compensation and bonuses for this role are based on these performance indicators, as well as others.
Facilities manager	Monetary reward	Emissions reduction target Energy reduction project Energy reduction target	Our facility managers' performance indicators include energy reduction targets and projects as well as emissions targets. Compensation and bonuses for this role are based on these performance indicators, as well as others.

C2. Risks and opportunities

C2.1

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

Yes

C2.1a

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

	From (years)	To (years)	Comment
Short-term	0	1	Seagate considers short-term risks to be those occurring in the next twelve months, in alignment with our enterprise-wide planning process.
Medium-term	1	3	Seagate considers medium-term risks to be those occurring in the next 1-3 years, in alignment with our enterprise-wide planning process.
Long-term	3	6	Seagate considers long-term risks to be those occurring in the next 3-6 years, in alignment with our enterprise-wide planning process. However, given the long-term nature (2040) of our science-based

			GHG reduction target, we also consider risks beyond a 6-year time frame.

C2.1b

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

Seagate defines substantive financial or strategic impact as a change in our business, operations, revenue or expenditure from climate-related risk that would impact our ability to successfully deliver product to 100% of our customers. We use a severity matrix to assess potential changes in our business, which rates risks on a scale of 1 to 5, 1 being a minimum of $100 million in potential impact and 5 being $500 million or more in potential impact. This applies to our direct operations with influence from both upstream and downstream business activities.

C2.2

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

Value chain stage(s) covered

Direct operations
Upstream
Downstream

Risk management process

Integrated into multi-disciplinary company-wide risk management process

Frequency of assessment

More than once a year

Time horizon(s) covered

Short-term
Medium-term
Long-term

Description of process

Process to Identify risks and opportunities with substantive impact:
Seagate conducts multiple risk assessment processes that identify and assess climate change and related risks and opportunities in our direct operations, upstream, and downstream. These processes are integrated into the enterprise risk management process which is conducted annually at a corporate level. The processes that feed into the corporate level risk assessment at the facility level occur more than once a year: at the site level, then again at the asset level for ISO 140001 review and at the corporate level for ISO 140001. At the asset level, EH&S and operations staff at all production facilities conduct an environmental impact analysis, which considers climate change and

related factors, as part of annual reviews in relation to ISO 140001 certification. This assessment considers local conditions in the evaluation of climate change and related risks; results are used to inform facility-level plans for the upcoming year. The team uses a matrix approach that considers impacts to gross margins, revenue and net income to determine the severity of each risk over the medium -term, in the next 1 -3 years. These results are then reviewed by each business group. Seagate's sustainability department reviews recent studies on climate change, inquiries from stakeholders, and global events as they relate to the company's operations and products as part of its annual sustainability risk review and planning. The results of these different processes are discussed with and prioritized by senior leadership to inform company -wide risk assessment. Risks and opportunities are prioritized for different reasons, one of which is substantive financial or strategic impact on our business. If the risk or opportunity is evaluated and may impact our ability to successfully deliver product to 100% of our customers, based on the type, magnitude, and likelihood, it is considered substantive. We make conservative estimates to quantify the financial impact, based on our professional judgement. For our direct operations we use a severity matrix to assess potential changes in our business, rating risks on a scale of 1 to 5, 1 being a minimum of $100 million in potential impact and 5 being $500 million or more in potential impact. Seagate follows this process for our direct operations, upstream and downstream business activities. Once identified, substantive risks and opportunities are reported more frequently than once a year, as necessary. The risk horizon considered for climate - related risks and opportunities is short -term, (0 -12 months), medium - term (1 -3 years), and long term (3 years onward).

Decision Making Process :
Seagate's decision process to mitigate, transfer, accept or control the risks or capitalize on opportunities depends primarily on what is within our control, and if the risk mitigation can be mutually beneficial. Seagate will take the action to mitigate substantive risks when they are within our control. For example, in the case of carbon tax in Singapore, we're mitigating it by improving efficiencies in the short term and finding a replacement chemical in the long term. Occasionally we will transfer the risk through increased product costs where that is the only option. However, in other cases, where we see an opportunity to support our customers to achieve mutual benefit, we will engage as we have done on a number of circularity efforts.

Physical Risk Case Study (upstream and direct operations):
In 2018 , we identified a physical risk of flooding in our operations and supply chain, especially in our facilities located in Southeast Asia. This physical risk of flooding could possibly lead to shortages in critical components, equipment or raw materials, such as recording heads and media, and uncertainty in macroeconomic conditions. While the equipment we use to manufacture our products and components is frequently custom made, it comes from a few suppliers, and the lead times required to obtain manufacturing equipment can be significant. To mitigate this risk, we aim to diversify our supply base as much as possible to prevent shortages in supply and increases in production costs. Additionally, Seagate has implemented a Business Continuity Management System, that includes our supply chain, to address continuity impacted by

flooding.

Transition Risk Case Study (direct operations):
Through our risk assessment, we have identified emerging climate regulation as a potential risk. For example, Seagate is preparing for the implications of the proposed Singapore Carbon Tax, slated to go into effect in 2020. The new Singapore Carbon Tax exposes Seagate to taxes in the amount of USD 700,000 annually starting in 2020. In 2019 , we focused on mitigating this transition risk by working on efficiency of the process thus reducing tax implications with a long -term plan to replace the chemical. We are continuing to invest in HAMR technology as planned to deliver efficiency gains per exabyte (EB) of storage. We are also working with a customer to implement circularity principles to lessen this transition risk and to reduce overall product emissions through reusing components from scrap drives. Transition Opportunity Case Study (downstream): Changing consumer behavior associated with climate change and related factors could affect our business. Currently, 1% of global power generation is consumed by data centers and storage accounts for 10% of the power usage. Seagate is capitalizing on this opportunity through maintaining power usage while delivering higher capacity to ensure HDDs are the preferred choice for data storage.

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	We believe that our operations are in material compliance with applicable environmental laws, regulations and permits. We budget for operating and capital costs on an ongoing basis to comply with environmental laws. If additional or more stringent requirements are imposed on our current business, we could incur additional operating costs and capital expenditures. Therefore, current regulation is always considered in our risk assessment. One example of a specific current regulation considered is the Singapore Carbon Tax. In 2019, we focused on mitigating this risk through efficiency improvements thus reducing tax implications. This current regulation goes into effect in 2020 and exposes Seagate to taxes in the amount of USD 700,00 for our 2019 processes. We continue to assess the potential to limit or phase-out the use of chemicals in production that have high global warming potentials (GWPs), which would reduce the potential financial impact of this pricing scheme.
Emerging regulation	Relevant, always included	The sale and manufacturing of products may subject us and our suppliers to state, federal and international regulations governing protection of the environment, including those governing discharges of

		pollutants into the air and water, the management and disposal of hazardous substances and wastes, the clean-up of contaminated sites, restrictions on the presence of certain substances in electronic products and the responsibility for environmentally safe disposal or recycling. We endeavor to ensure that we and our suppliers comply with all applicable environmental laws and regulations. If additional or more stringent requirements are imposed on our future business, we could incur additional operating costs and capital expenditures. Therefore, emerging regulation is always considered in our risk assessment. We regularly include product efficiency regulations and standards in our climate-related risk assessments that can improve our products. An example of an emerging regulation considered is a regulation on volatile organic compounds (VOCs) in China. There are four different types including several that are directly relevant to chemicals used in our operations to make our products, such as the ink used on our packaging. This regulation is planned to go into effect in phases starting in 2020 and 2021.
Technology	Relevant, always included	Technology is at the core of Seagate's business. We face the risk of not meeting customer requests for total cost of ownership (TCO) per exabyte (EB) for the products we sell if a more efficient storage technology comes on the market. Therefore, technology risks are always considered in our risk assessment. An example risk is a change in technology that allows our competitors to deliver a more energy efficient storage product. Seagate regularly monitors potential product efficiency regulations and standards that can improve our products and support the transition to energy -efficient economic system. We will meet our customer expectations by providing storage solutions at a low TCO. Seagate is managing this risk by investing in new technologies, such as HAMR, to improve product efficiency per EB. We invested in this new technology in 2019 and continue to invest as it is delivering in our efficiency gains per EB of storage and enables us to remain competitive among storage solution products. To date, we have conducted ISO -Conformant LCAs across our product portfolio, identifying opportunities to reduce the energy needs of each product, particularly in the customer use phase.
Legal	Relevant, always included	The sale and manufacturing of products may subject us and our suppliers to state, federal and international laws governing protection of the environment, including those governing discharges of pollutants into the air and water, the management and disposal of hazardous substances and wastes, the clean -up of contaminated sites, restrictions on the presence of certain substances in electronic products and the responsibility for environmentally safe disposal or

		recycling. We endeavor to ensure that we and our suppliers comply with all applicable environmental laws and regulations. If additional or more stringent requirements are imposed on our future business, we could incur additional operating costs and capital expenditures. Therefore, legal risks are always considered in our risk assessment. We consider legal risk at a local level. For example, at all production facilities, our Facility Managers conduct environmental impact analyses annually, which consider a variety of legal and regulatory factors, including those related to climate change. These factors are subsequently included in the company's enterprise risk assessment process. An example legal risk mitigated was at our Springtown facility in Northern Ireland. The EU Energy Efficiency Directive required us to either conduct an energy audit or implement ISO 50001. In response to this legal/regulatory driver, we implemented ISO 50001 at the facility and have plans to implement across global facilities in the coming years.
Market	Relevant, always included	Seagate manufactures storage devices and systems. The market for technology products is continually changing with consumer demands. If our products fail to meet these demands it would decrease demand for our product. Therefore, market risks are always considered in our risk assessment. An example market risk considered is meeting the market demands for total cost of ownership (TCO). If our products do not continue to meet these efficiency demands as part of TCO, our customers could choose to purchase technology products from our competitors, and we could experience reduced revenue. The storage devices and systems available in the market are continually improving TCO which includes cost, product efficiency and energy efficiency, largely because our customers are demanding these improvements. The demand for energy efficient products in the market is a consideration in our risk assessment process, and as such has become a design requirement for new products. TCO is most important to enterprise drive customers. To date, we have been able to meet all the requirements for TCO and therefore have retained our customers business. In 2019, we produced the most energy efficient drive, normalized to storage, in an effort to keep HDDs the preferred storage medium. However, in the future if we don't continue to improve our technology, we are at risk for losing customers for enterprise drives.
Reputation	Relevant, always included	Our reputation, as it relates to climate-related issues, is important to our business, which primarily focuses on enterprise customers and business to business sales. Our reputation is important to keep our

		customers satisfied, which directly impacts our bottom line. Therefore, reputation risks are always considered in our risk assessment. An example reputational risk considered is failure to comply with applicable environmental laws, regulations, initiatives, or standards of conduct. This could decrease our brand value, increase our liability to our customers and damage our reputation in addition to potential fines, penalties, and possible prohibition of sales of our products into one or more states or countries. This risk could result in a material adverse effect on the financial condition or results of operations. Another example of mitigated reputational risk was at our Springtown facility in Northern Ireland. The EU Energy Efficiency Directive required us to either conduct an energy audit or implement ISO 50001. In response to this legal/regulatory driver, we implemented ISO 50001 at the facility. Compliance with this legal/regulatory driver helped us maintain our reputation both locally and as a global brand.
Acute physical	Relevant, always included	Our business operations are subject to interruption by natural disasters such as floods and earthquakes. Such events could decrease demand for our products, make it difficult or impossible for us to make and deliver products to our customers, or to receive components from our suppliers, and create delays and inefficiencies in our supply chain. In the event of a natural disaster, losses and significant recovery time could be required to resume operations and our financial condition and operating results could be materially adversely affected. Additionally, many of our component suppliers are geographically concentrated in Thailand, which makes our supply chain more vulnerable to regional disruptions. Therefore, acute physical risks are always considered in our risk assessment. An example risk that became a reality is the severe flooding in Thailand in October 2011, which had a material impact on the production and availability of many components. There are a limited number of independent suppliers of components, such as recording heads and media, available to disk drive manufacturers. In fiscal year 2012, the industry experienced significant increases in the cost of components due to the 2011 flooding in Thailand.
Chronic physical	Relevant, always included	Chronic physical risks to our facilities are considered for their potential to interrupt or halt supply, particularly as it relates to changing water landscapes. Therefore, chronic physical risks are always considered in our risk assessment. For example, we evaluate flood risk through use of WRI Aqueduct's tool and reviewing 100-year flood maps. Currently the updated flood maps show that our Minnesota location may be at risk.

C2.3

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

Yes

C2.3a

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

Identifier

Risk 1

Where in the value chain does the risk driver occur?

Direct operations

Risk type & Primary climate-related risk driver

Emerging regulation

Mandates on and regulation of existing products and services

Primary potential financial impact

Increased indirect (operating) costs

Company-specific description

The sale and manufacturing of products in certain states and countries may subject us and our suppliers to state, federal and international laws and regulations governing protection of the environment, including those governing discharges of pollutants into the air and water, the management and disposal of hazardous substances and wastes, the clean-up of contaminated sites, restrictions on the presence of certain substances in electronic products and the responsibility for environmentally safe disposal or recycling. We endeavor to ensure that we and our suppliers comply with all applicable environmental laws and regulations, however, compliance may increase our operating costs and otherwise impact future financial results. If additional or more stringent requirements are imposed on us in the future, we could incur additional operating costs and capital expenditures. If we fail to comply with applicable environmental laws, regulations, initiatives, or standards of conduct, our customers may refuse to purchase our products and we could be subject to fines, penalties and possible prohibition of sales of our products into one or more states or countries, liability to our customers and damage to our reputation, which could result in a material adverse effect on the financial condition or results of operations. In 2020, Singapore will be introducing a Carbon Tax that will impact our Singapore facilities and we will pay about 700,000 USD in taxes for our 2019 emissions.

Time horizon

Medium-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)

700,000

Potential financial impact figure – minimum (currency)

Potential financial impact figure – maximum (currency)

Explanation of financial impact figure

Seagate anticipates that the Singapore Carbon Tax could expose us to a potential annual tax of $700,000 starting in 2020 if no mitigation actions are taken. This cost was estimated based on the current price of the tax, 5 SGD / metric ton CO2e and multiplied by our direct emissions at our qualifying sites, then converted into USD. In the future, this price may escalate.

Cost of response to risk

100,000

Description of response and explanation of cost calculation

We have established environmental management systems and continually update environmental policies and standard operating procedures for our operations worldwide, which includes pursuing ISO14001 and ISO50001 at key facilities. We believe that our operations are in material compliance with applicable environmental laws, regulations and permits. We budget for operating and capital costs on an ongoing basis to comply with environmental laws. If additional or more stringent requirements are imposed in the future, we could incur additional operating costs and capital expenditures. We engage with key stakeholders on social and environmental issues, including climate-related issues to provide us with the insights and relationships needed to make well-informed business decisions. Seagate was a founding member and continues to maintain active membership with the Responsible Business Alliance (RBA), a cooperative of leading electronics companies working to improve social, ethical and environmental responsibility in the global electronics supply chain. Seagate adopted the RBA Code of Conduct in 2007. For the Singapore Carbon Tax, we are assessing the potential to limit or phase-out of the use of high global warming potential (GWP) chemicals for production, to reduce the potential financial impact of this tax. We will spend approximately USD 100,000 in time, engineering resources to research a replacement chemical to mitigate this risk.

Comment

These costs could increase, depending on the type and rigor of new legislation enacted.

Identifier

Risk 2

Where in the value chain does the risk driver occur?

Upstream

Risk type & Primary climate-related risk driver

Chronic physical

Changes in precipitation patterns and extreme variability in weather patterns

Primary potential financial impact

Decreased revenues due to reduced production capacity

Company-specific description

Our business operations are subject to interruption by natural disasters such as floods and earthquakes. Such events could decrease demand for our products, make it difficult or impossible for us to make and deliver products to our customers, or to receive components from our suppliers, and create delays and inefficiencies in our supply chain. In the event of a natural disaster, losses and significant recovery time could be required to resume operations and our financial condition and operating results could be materially adversely affected. Additionally, many of our component suppliers are geographically concentrated in Thailand, which makes our supply chain more vulnerable to regional disruptions. An example is the severe flooding in Thailand in October 2011, which had a material impact on the production and availability of many components. There are a limited number of independent suppliers of components, such as recording heads and media, available to disk drive manufacturers. In fiscal year 2012, the industry experienced significant increases in the cost of components due to the 2011 flooding in Thailand.

Time horizon

Short-term

Likelihood

More likely than not

Magnitude of impact

Medium

Are you able to provide a potential financial impact figure?

Yes, a single figure estimate

Potential financial impact figure (currency)

25,000,000

Potential financial impact figure – minimum (currency)

Potential financial impact figure – maximum (currency)

Explanation of financial impact figure

We estimate that the financial implications of a severe storm could be in excess of $25 million, depending on the severity of the event and the geographic diversity of our suppliers. This estimate is primarily based on costs associated with increases in the cost of components as a result of supplier disruptions.

Cost of response to risk

1,300,000

Description of response and explanation of cost calculation

While the equipment we use to manufacture our products is frequently custom made, comes from a few suppliers, and the lead times required to obtain manufacturing equipment can be significant, we aim to diversify our supply base as much as possible, to prevent shortages in supply and increases in production costs. In addition, Seagate has implemented a Business Continuity Management System, that includes our supply chain, to address continuity impacted by flooding.

Managing this risk via supplier diversification is estimated to cost in the range of $5-10 per thousand units sold. This estimate was developed based on the historical per unit increase in price from previous shortages of components, and the annual sales volume. Based on 132 million units sold in 2019, the cost to manage this risk is approximately $1,300,000 (132,000 thousand units x $10/thousand units).

Comment

Identifier

Risk 3

Where in the value chain does the risk driver occur?

Direct operations

Risk type & Primary climate-related risk driver

Technology

Substitution of existing products and services with lower emissions options

Primary potential financial impact

Decreased revenues due to reduced demand for products and services

Company-specific description

Seagate manufactures electronic storage devices and systems. The storage devices and systems available in the market are continually improving total cost of ownership (TCO) which includes cost, product efficiency and energy efficiency, largely because our customers are demanding these improvements. If our products do not continue to meet these efficiency demands as part of TCO our customers could choose to purchase

technology products from our competitors, and we could experience reduced revenue. TCO is most important to enterprise drive customers. To date, we have been able to meet all technology requirements for TCO and therefore have retained our customers business. However, in the future if we don't continue to improve our technology, we are at risk for losing customers for enterprise drives.

Time horizon

Short-term

Likelihood

Likely

Magnitude of impact

Medium

Are you able to provide a potential financial impact figure?

Yes, a single figure estimate

Potential financial impact figure (currency)

200,000,000

Potential financial impact figure – minimum (currency)

Potential financial impact figure – maximum (currency)

Explanation of financial impact figure

Based on our professional judgement, considering our diversified customer base and customer interest in TCO, we estimate this technology risk may impact 2% of our revenue which would result in an estimated $200 million if no action is taken.

[2% * $10.4 billion in 2019 revenue = approximately $200 Million]

Cost of response to risk

40,000

Description of response and explanation of cost calculation

Seagate works directly with customers on total cost of ownership, and specifically energy efficiency considerations. We continuously conduct ISO-Conformant LCAs across our product portfolio, identifying opportunities to reduce the energy needs of products, particularly in the customer use phase. Our ISO-Conformant LCAs across many product families have allowed us to identify opportunities to reduce product environmental impact. We implemented the use of a new technology, HAMR in 2019, to improve product efficiency per exabyte (EB), and it has been performing as expected to reduce energy consumption of our products. Additionally, we engage with key stakeholders on social and environmental issues to help improve the sustainability of our products. One of our key industry collaborations is with the Responsible Business Alliance (RBA), a cooperative of consumer products companies working to improve

social, ethical and environmental responsibility in the global electronics supply chain.

Managing this risk via LCAs, which is not an incremental cost as it is part our normal business practice, is costs approximately $40,000 per year to conduct our ISO compliant LCAs. Seagate completes as many LCAs as reasonable for this fixed budget amount.

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?

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

We anticipate that current or potential future product efficiency regulations and standards could present opportunities for Seagate given our increasing focus on reducing life cycle impacts across our product portfolio. This increased focus includes prioritizing the energy efficiency of our products, which ultimately will help our customers reduce their own energy use and lead to increased sales and revenue for Seagate.

Time horizon

Long-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)

100,000,000

Potential financial impact figure – minimum (currency)

Potential financial impact figure – maximum (currency)

Explanation of financial impact figure

Increased demand for existing products could lead to increased sales and revenue for Seagate. Based on our professional judgement, we estimate the potential financial benefit could result in as much as a 1% in incremental sales and revenue, which would result in an estimated $100 million in additional revenue. [1% * $10.4 billion in 2019 revenue = approximately $100 Million]

Cost to realize opportunity

40,000

Strategy to realize opportunity and explanation of cost calculation

Seagate regularly monitors potential product efficiency regulations & standards that can improve our products. One driver in our effort to evaluate the life cycle impact of our products is ability to better respond to changes in regulation. To date, we have conducted ISO 14044 compliant LCAs across our product portfolio, identifying opportunities to reduce the energy needs of products, particularly in the customer use phase. We have conducted ISO-Conformant LCAs across many product families in our portfolio, identifying opportunities to reduce product environmental impact and completing pilot projects to evaluate product circularity. We continue to use LCA to assess the life cycle impacts of our products and inform decision-making about product development and packaging. Additionally, we continuously update a two-page specification sheet for each of our drives, which includes information from LCAs, such as energy use and circularity. These spec sheets help educate consumers about the differences between our drives and allow consumers to make informed purchases. Cost Calculation: This is not an incremental cost and the cost of monitoring regulations is part of our standard business practices. The LCAs are completed with or without this opportunity, the cost is about $40,000 per year to complete the LCAs. Seagate completes as many as many LCAs as reasonable for this fixed budget amount.

Comment

Identifier

Opp2

Where in the value chain does the opportunity occur?

Downstream

Opportunity type

Products and services

Primary climate-related opportunity driver

Shift in consumer preferences

Primary potential financial impact

Increased revenues resulting from increased demand for products and services

Company-specific description

We anticipate that current or potential future changes in consumer behavior, including an increasing preference for more efficient products, could present opportunities for Seagate given our increasing focus on reducing life cycle impacts across our product portfolio. In 2019 we piloted circularity options by reusing a component from a scrap drive to build a new drive and confirmed a lower GHG emission footprint through LCA.

Time horizon

Long-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)

100,000,000

Potential financial impact figure – minimum (currency)

Potential financial impact figure – maximum (currency)

Explanation of financial impact figure

Increased demand for existing products could lead to increased sales and revenue for Seagate. Based on our professional judgement, we estimate the potential financial benefit could result in as much as a 1% in incremental sales and revenue, which would

result in an estimated $100 million in additional revenue. [1% * $10.4 billion in 2019 revenue = approximately $100 Million]

Cost to realize opportunity

40,000

Strategy to realize opportunity and explanation of cost calculation

Seagate regularly monitors potential product efficiency regulations & standards that can improve our products. One driver in our effort to evaluate the life cycle impact of our products is ability to better respond to changes in regulation and meet customer expectations by providing storage solutions as a low total cost of ownership (TCO). Seagate is realizing this opportunity by completing ISO-Conformant LCAs across our product portfolio, identifying opportunities to reduce the energy needs of products, particularly in the customer use phase. We implemented the use of a new technology, HAMR in 2019, to improve product efficiency per EB. This technology has reduced energy of our products, as expected, and has also enabled us to remain competitive among storage solution products. We continue to use LCA to assess the life cycle impacts of our products and inform decision-making about product development and packaging. Additionally, we continuously update a two-page specification sheet for each of our drives, which includes information from LCAs, such as energy use and circularity. These spec sheets help educate consumers about the differences between our drives and allow consumers to make informed purchases. Cost Calculation: The technology evaluation is part of our standard business practices and the cost to complete the LCAs is about $40,000 per year. Seagate completes as many as many LCAs as reasonable for this fixed budget amount.

Comment

Identifier

Opp3

Where in the value chain does the opportunity occur?

Direct operations

Opportunity type

Resource efficiency

Primary climate-related opportunity driver

Use of more efficient production and distribution processes

Primary potential financial impact

Reduced indirect (operating) costs

Company-specific description

Seagate has an opportunity to reduce the cost of operations through undertaking process improvements and energy efficiency projects. These projects reduce our energy

costs, reduce our exposure to current and future carbon taxes and GHG pricing schemes, while also allowing us to work toward our annual emission reduction goals. In 2020, Singapore will be introducing a Carbon Tax that will impact our Singapore facilities. Over the past several years Seagate has been working to identify, test, and deploy the use of a lower-emissions process chemical, currently used at the Singapore facility. The original replacement chemical failed our evaluation, and we are reviewing an additional replacement chemical. Therefore, in 2019 we focused on efficiency of the process thus reducing tax implications with a long-term plan to replace the chemical, with the ultimate goal of limiting or avoiding taxes associated with the high GHG emissions of the current chemical.

Time horizon

Short-term

Likelihood

Very 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)

1,000,000

Potential financial impact figure – minimum (currency)

Potential financial impact figure – maximum (currency)

Explanation of financial impact figure

Savings are estimated based on average monetary savings per energy reduction at representative facilities, applied to total energy savings in 2019 ($1,000,000).

Cost to realize opportunity

10,100,000

Strategy to realize opportunity and explanation of cost calculation

Seagate pursues energy efficiency and GHG reduction projects throughout the year. Various voluntary conservation projects were undertaken involving facility operations, which generated Scope 1 and 2 emission reductions. For example, many of our facilities either completed LED lighting upgrades or have plans to do so. Additionally, several sites have upgraded HVAC systems and undergone HVAC controls optimization. One site has lowered the temperature of deionized water used in the washing process and optimized the wash process, for an estimated savings of $56,000 per year. Finally, another site recycles heat from the plant's five sets of water-cooled air compressors, using waste heat in the plant's central heating and hot water systems. Over 65 projects

were implemented, generating a savings of 10,000 MWh in 2019. Specific to the Singapore Carbon Tax, we are assessing the potential to limit or phase-out the use of chemicals for production that have high global warming potentials (GWPs), which would reduce the potential financial impact of this pricing scheme. In addition, we are currently pursuing a global certificate for ISO 50001 which will cover our 7 manufacturing sites. The investment for our energy efficiency projects of $10.1 million, which is the upfront capital cost.

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	We relied on a number of modeling tools including those endorsed by SBTi. We input our Scope 1, Scope 2, and Scope 3 emissions into these tools, to analyze the different scenarios, and what that means for our emissions. By achieving absolute emission reductions, our target exceeds the level of ambition needed to achieve the 2° scenario, and meets the well-below 2° scenario. Assumptions: No assumptions were necessary as we are focused on an absolute reduction, therefore, we need to achieve 2.5% reductions per year no matter our growth in business operations. Analytical Methods: Seagate analyzed requirements to meet several scenarios, including 2°, well-below 2°, and 1.5° . We used this information to inform our business strategy such that, even in the worst-case scenario modeled, if all companies were able to reduce their emissions consistent with our 2025 and

	2040 commitments, the world would be on track to avoid a 2° C increase in global average temperatures by 2100. Time horizon considered: The assessment looked at scenarios 8 to 23 years into the future from the latest year of available data (2017). We ultimately set a short term (2025) and a long term (2040) goal to ensure continued commitment to emissions reductions as part of our business strategy. These timelines are in line with our other business planning time horizons. Areas of organization included: To align with recommendations from the Science-Based Targets initiative, we included 100% of our Scope 1, 2 and 3 emissions. This includes our largest Scope 3 category, use of sold products. Thus, the analysis covered the aspects of our operations that generate Scope 1 and Scope 2 emissions, and also covered the Scope 3 emissions from our suppliers and our customers. How results have informed business objectives/strategy: The results of this analysis indicated that we need to reduce our Scope 1, Scope 2, and Scope 3 emissions by 2.5% per year to be consistent with the well-below 2° scenario and prevent the worst impacts of climate change. This translates to an absolute reduction in Seagate GHG Scope 1 and 2 emissions of approximately 230,000 tCO2e and 2.8 million tCO2e Scope 3 emissions by 2025 across our operations (e.g., manufacturing and R&D facilities), suppliers and customers. Case study (How results have influenced business objectives/strategy): The results of the analysis have informed our business objectives and strategy in a number of ways. For example, completing the scenario analysis to set our science-based target has given our organization an understanding of the requirements to avoid catastrophic climate change. Most specifically, the scenario analysis has led us to set two science-based targets in 2018: to reduce Scope 1 and 2 emissions by 20% from 2017 to 2025 and 60% by 2040, and to reduce Scope 3 emissions by 20% from 2017 to 2025 and 60% by 2040. These targets are an important component of our business objectives and strategy moving forward. We recognize the importance of continuing to complete our LCA analyses to evaluate product use efficiency to have the largest impact on our value chain and our Scope 3 emissions; the results of these analyses will inform specific improvement actions to reduce emissions both for specific products and across our product portfolio. We also are committed to continuing to reduce the Scope 1 and 2 emissions in our own operations, informed by our scenario analysis and subsequent science based targets; we implemented more than 65 energy savings projects across our facilities in 2019 and will continue to identify additional projects in the future as part of our strategy.

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	Climate-related risks and opportunities related to product energy, resource efficiency and GHG emissions as well as consumer's demand for related information have influenced Seagate's strategy for our products. Since 2011, Seagate has conducted ISO 14044 compliant LCAs annually across our product portfolio. These LCAs identify opportunities to reduce the energy needs of products, particularly in the customer use phase. We have conducted ISO-Conformant LCAs across many product families in our portfolio, identifying opportunities to reduce product environmental impact. We continue to use LCA to assess the life cycle impacts of our products and inform decision-making about product development and packaging annually. Additionally, we continuously update a two-page specification sheet for each of our drives, which includes information from LCAs, such as energy use and circularity. These spec sheets help educate consumers about the differences between our drives and allow consumers to make informed purchases. These LCAs stand for the lifetime of our products, and at this point we do not have a plan to stop conducting LCAs, and our strategy is intended for the long term as storage continues to increase and energy efficiency becomes more important. Case Study: The most substantial strategic decision made that was influenced by climate-related risks and opportunities for our products was to focus on circularity through pilot tests with our customers. GHG emissions and resource depletion were the primary drivers that influenced Seagate to look at product circularity. During this pilot study, we discovered that harvesting and reusing magnet components leads to fewer GHG impacts than recycling the same materials. We expect to use these results to influence the design of our products and consider product circularity and GHG emissions.

Supply chain and/or value chain	Yes	Climate-related risks and opportunities related to emission reductions associated with value chain decisions have influenced Seagate's value-chain strategy. Specifically, we are looking at increasing the amount of post-consumer recycled content in our products. Through our ISO 14044 compliant LCAs across our product portfolio, we have determined that certain materials will have a beneficial impact on our GHG emissions if we use post-consumer content instead of virgin. This strategy will be realized in the medium-term, 1-3 years. Case Study: The most substantial strategic decision made that was influenced by climate-related risks and opportunities in our value chain was to engage our customers in discussions around product circularity, and the use of post-consumer recycled materials. These pilot projects with our customers will allow us to improve the environmental impacts of our products. We have committed to improving our supply chain and value chain impacts through setting a scope 3 science-based target to reduce Scope 3 emissions 20% from 2017 to 2025 and 60% from 2017 to 2040. The Scope 3 portion of this target covers the value chain upstream and downstream. Our largest scope 3 source is use of sold products, and therefore product efficiency is of utmost importance to meet this target.
Investment in R&D	Yes	Climate-related risks and opportunities related to product energy, resource efficiency and GHG emissions have influenced Seagate's strategy for investment in R&D through conducting ISO 14044 compliant LCAs across our product portfolio. These LCAs identify opportunities to reduce the energy needs of products, particularly in the customer use phase. We also consider climate-related regulations such as the Singapore Carbon Tax do drive our R&D strategy. For example, we are assessing the potential to limit or phase-out the use of chemicals for production that have high global warming potentials (GWPs), which would reduce the potential financial impact of this pricing scheme. The original replacement chemical failed our evaluation, and we are reviewing an additional replacement chemical. In 2019 we focused our R&D investment on efficiency of the process thus reducing tax implications in the short-term, with a long-term plan to replace the chemical. Additionally, we are designing for product circularity which will have long-term impacts on our business.

		Case Study: To date, the most substantial business decision made relating to R&D was to invest in a pilot project on circularity using LCA for one of our customers. During this study, we discovered that harvesting and reusing magnet components leads to fewer GHG impacts than recycling the same materials. We expect to use these results to provide designers additional resources during the design process that will aid in considering product circularity and GHG emissions when making design choices.
Operations	Yes	The incorporation of climate change into our business strategy is overseen by Seagate's Global Citizenship program, which establishes the company's corporate social responsibility strategies, ensures adherence to laws, ethical standards and international norms and embraces responsibility for how the company's activities affect stakeholders. The mission of our Global Citizenship program is to drive socially responsible and sustainable business practices consistent with corporate values and to provide assurance to management and stakeholders that such practices are managed effectively. The Global Citizenship program is directed through a team of cross-functional leaders that is accountable to the program sponsor, the President of Operations and Technology. This team meets on a regular basis to monitor changes in societal expectations, develop strategies that drive organizational change, report progress on annual program improvement goals and support ongoing implementation of the Global Citizenship program. Issue-specific work groups analyze and recommend solutions for emerging issues. Seagate's President of Operations and Technology serves as the executive sponsor of the Global Citizenship program and the Sustainability organization provides functional leadership. We will continue to evaluate solar PV installations, which will impact our energy use in the long-term and our new equipment standards will be relevant for the long-term, > 3 years. Case Study: The most substantial strategic decision made by our Global Citizenship program is to focus on conservation, efficiency and renewables. In 2019, we focused on efficiency of our operational process specifically as it relates to our Singapore facility that is subject to a carbon tax, with a long-term plan to replace the chemical. We also improved efficiency through new equipment standards. We are evaluating renewables and issued a

		request for qualifications for a solar PV installation at one of our largest facilities, Teparuk, Thailand.

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 Indirect costs Access to capital	Our financial planning has been influenced by climate-related risks and opportunities. Our budget has been influenced by several climate-related risks and opportunities, including our ISO certifications and carbon tax planning. In 2019, we planned for the Singapore Carbon Tax that will impact our Singapore facilities. To avoid increasing operating expenses from this tax, Seagate has been working to identify, test, and deploy the use of a lower-emissions process chemicals for the Singapore facility. The original chemical failed our evaluation, and we are reviewing an additional replacement chemical. In 2019 we focused on efficiency of the process thus reducing tax implications with a long-term plan to replace the chemical. We have included budget for the carbon tax in our financial planning. The tax is set from 2020-2023 but is likely to increase after 2023 and we are considering that potential budget impact as well. We have also included carbon consideration in facilities capital project evaluation and access to capital. The potential interruption by natural disasters such as floods and earthquakes have been included in our financial planning as a result of the severe flooding in Thailand in October 2011 which had a material impact on the production and availability of many components that go into our products. We estimate that the financial implications of a severe storm could be in excess of $25 million, depending on the severity of the event and the geographic diversity of our suppliers.

C3.1f

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

The incorporation of climate change into our business strategy is overseen by Seagate's Global Citizenship program, which establishes the company's corporate social responsibility strategies, ensures adherence to laws, ethical standards and international norms and embraces responsibility for how the company's activities affect stakeholders. The mission of our Global Citizenship program is to drive socially responsible and sustainable business

practices consistent with corporate values and to provide assurance to management and stakeholders that such practices are managed effectively. The Global Citizenship program is directed through a team of cross-functional leaders that are accountable to the program sponsor, the President of Operations and Technology. The Sustainability organization provides functional leadership. This team meets on a regular basis to monitor changes in societal expectations, develop strategies that drive organizational change, report progress on annual program improvement goals and support ongoing implementation of the Global Citizenship program. Issue-specific work groups analyze and recommend solutions for emerging issues.

Seagate's Global Citizenship program has decided to pursue ISO 50001 at a global level, instead of by facility. We have allocated budget for this implementation and certification which has a strong energy efficiency component for our operations. We have identified climate-related risks and opportunities with regards to our products and we are exploring how best improve management of products at the end of life. This exploration is driven by the potential to benefit GHG, circularity, data security and economics of our products.

C4. Targets and performance

C4.1

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

Both absolute and intensity targets

C4.1a

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

Target reference number

Abs 1

Year target was set

2018

Target coverage

Company-wide

Scope(s) (or Scope 3 category)

Scope 1+2 (market-based)

Base year

2017

Covered emissions in base year (metric tons CO2e)

1,133,571

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

100

Target year

2025

Targeted reduction from base year (%)

20

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

906,856.8

Covered emissions in reporting year (metric tons CO2e)

1,138,218

% of target achieved [auto-calculated]

-2.0497172211

Target status in reporting year

Underway

Is this a science-based target?

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

Please explain (including target coverage)

This is a medium-term science-based target and covers 100% of scope 1 and scope 2 market-based emissions.

Target reference number

Abs 2

Year target was set

2018

Target coverage

Company-wide

Scope(s) (or Scope 3 category)

Scope 3 (upstream & downstream)

Base year

2017

Covered emissions in base year (metric tons CO2e)

13,972,000

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

100

Target year

2025

Targeted reduction from base year (%)

20

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

11,177,600

Covered emissions in reporting year (metric tons CO2e)

9,909,200

% of target achieved [auto-calculated]

145.3907815631

Target status in reporting year

Underway

Is this a science-based target?

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

Please explain (including target coverage)

This is a medium-term science-based target and covers 100% of scope 3 emissions.

Target reference number

Abs 3

Year target was set

2018

Target coverage

Company-wide

Scope(s) (or Scope 3 category)

Scope 1+2 (market-based)

Base year

2017

Covered emissions in base year (metric tons CO2e)

1,133,571

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

100

Target year

2040

Targeted reduction from base year (%)

60

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

453,428.4

Covered emissions in reporting year (metric tons CO2e)

1,138,218

% of target achieved [auto-calculated]

-0.6832390737

Target status in reporting year

Underway

Is this a science-based target?

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

Please explain (including target coverage)

This is a long-term science-based target and covers 100% of scope 1 and scope 2 market-based emissions.

Target reference number

Abs 4

Year target was set

2018

Target coverage

Company-wide

Scope(s) (or Scope 3 category)

Scope 3 (upstream & downstream)

Base year

2017

Covered emissions in base year (metric tons CO2e)

13,972,000

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

100

Target year
2040

Targeted reduction from base year (%)
60

Covered emissions in target year (metric tons CO2e) [auto-calculated]
5,588,800

Covered emissions in reporting year (metric tons CO2e)
9,909,200

% of target achieved [auto-calculated]
48.4635938544

Target status in reporting year
Underway

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

Please explain (including target coverage)
This is a long-term science-based target and covers 100% of scope 3 emissions.

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
2015

Target coverage
Company-wide

Scope(s) (or Scope 3 category)
Scope 1+2 (market-based)

Intensity metric
Metric tons CO2e per unit of production

Base year
2018

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

3,396

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

100

Target year

2019

Targeted reduction from base year (%)

2

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

3,328.08

% change anticipated in absolute Scope 1+2 emissions

0

% change anticipated in absolute Scope 3 emissions

0

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

3,280

% of target achieved [auto-calculated]

170.789163722

Target status in reporting year

Achieved

Is this a science-based target?

No, but we are reporting another target that is science-based

Please explain (including target coverage)

In 2019, we had an intensity target to reduce 2% per exabyte, and an absolute target on power saving of 20,000 MWh. This is a year-on-year rolling target that has been in effect since 2015.

C4.2

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

Other climate-related target(s)

C4.2b

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

Target reference number

Oth 1

Year target was set

2018

Target coverage

Company-wide

Target type: absolute or intensity

Intensity

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

Energy consumption or efficiency

MWh

Target denominator (intensity targets only)

unit of production

Base year

2018

Figure or percentage in base year

4,948

Target year

2019

Figure or percentage in target year

4,789

Figure or percentage in reporting year

100

% of target achieved [auto-calculated]

3,049.0566037736

Target status in reporting year

Achieved

Is this target part of an emissions target?

This target is related to target Int 1 reported in C4.1b, an intensity target to reduce 2% per exabyte from 2018 to 2019.

Is this target part of an overarching initiative?

No, it's not part of an overarching initiative

Please explain (including target coverage)

In 2019, we had an intensity target to reduce 2% per exabyte, and an absolute target on power saving of 20,000 MWh.

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	107	
To be implemented*	107	7,540
Implementation commenced*	33	1,331
Implemented*	69	6,131
Not to be implemented	5	

C4.3b

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

Initiative category & Initiative type

Energy efficiency in buildings

Other, please specify

Building controls, lighting, motors and drives

Estimated annual CO2e savings (metric tonnes CO2e)

6,131

Scope(s)

Scope 2 (location-based)

Voluntary/Mandatory

Voluntary

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

1,000,000

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

10,100,000

Payback period

4-10 years

Estimated lifetime of the initiative

6-10 years

Comment

Various voluntary conservation projects were undertaken involving facilities operations, which generated Scope 2 emission reductions. Over 65 projects were carried out, generating a saving of 10,445 MWh in 2019. Seagate pursues energy efficiency and GHG reductions projects throughout the year. Various voluntary conservation projects were undertaken involving facilities operations, which generated Scope 1 and 2 emission reductions. Approximately six facilities either completed LED lighting upgrades or have plans to do so. Additionally, several sites have upgraded HVAC units and undergone HVAC controls optimization. One site has lowered the temperature of deionized water used in the washing process and optimized the wash process, for an estimated savings of $56,000 per year. Finally, one site has replaced several water-ring vacuum pumps with highly efficient air-ring type vacuum pumps. Projects are identified by staff at each facility and prioritized based on feasibility, cost and anticipated savings.

C4.3c

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

Method	Comment
Internal finance mechanisms	Since the majority of our emissions are from electricity usage (Scope 2), energy reduction activities have a cost savings associated with them. We have an internal return on investment model to evaluate and approve investment in this area. We are also investing in new manufacturing technology which will reduce Scope 1 emissions. These improvements are driven by internal product requirements.

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?

No

C5. Emissions methodology

C5.1

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

Scope 1

Base year start

January 1, 2017

Base year end

December 31, 2017

Base year emissions (metric tons CO2e)

255,388

Comment

Scope 2 (location-based)

Base year start

January 1, 2017

Base year end

December 31, 2017

Base year emissions (metric tons CO2e)

881,903

Comment

Scope 2 (market-based)

Base year start

January 1, 2017

Base year end

December 31, 2017

Base year emissions (metric tons CO2e)

878,183

Comment

C5.2

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

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

C6. Emissions data

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)

262,445

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

869,654

Scope 2, market-based (if applicable)

875,773

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

1,300,000

Emissions calculation methodology

Seagate uses hard drive production data and global goods and services purchase activity data to calculate emissions from this category. Hard drive production data emissions from the raw material and pre-processing phase of Seagate's public LCAs are used to allocate emissions for materials and goods used directly in hard drive production. Emissions from other purchased goods and services and are calculated using purchasing data and year 2011 emission factors from 2014 Guidelines to Defra / DECC's GHG Conversion Factors for Company Reporting (Table 13), using exchange and inflation rates to adjust the factors.

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

0

Please explain

Capital goods

Evaluation status

Relevant, calculated

Metric tonnes CO2e

210,000

Emissions calculation methodology

Seagate uses purchase activity data to calculate emissions from this category. Seagate's accounting department defines purchased capital goods. These purchases are calculated using year 2011 emission factors from 2014 Guidelines to Defra /

DECC's GHG Conversion Factors for Company Reporting (Table 13), using exchange and inflation rates to adjust the factors.

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

0

Please explain

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

Evaluation status

Relevant, calculated

Metric tonnes CO2e

190,000

Emissions calculation methodology

Seagate uses global energy purchase activity data to calculate emissions from this category. Global upstream emissions from fuel purchases and US upstream emissions from electricity purchases are calculated using emission factors derived from lifecycle analysis software. Outside of the US, upstream emissions and T&D losses from electricity purchases are estimated using emission factors from DEFRA 2013 Guidelines. Within the US, T&D losses are calculated using data from EPA's eGRID2018, January 2020.

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

99

Please explain

Upstream transportation and distribution

Evaluation status

Relevant, calculated

Metric tonnes CO2e

100,000

Emissions calculation methodology

Seagate uses hard drive production data, and emissions from the distribution phase of Seagate's public LCAs to allocate emissions to upstream transportation and distribution. Emissions from the distribution phase are split between upstream and downstream transportation and distribution based on surveys of Seagate's tier 1 suppliers. This category does not include transportation and distribution emissions of office mail and other non-hard drive related activities. Most of Seagate's products are hard drive related.

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

0

Please explain

Waste generated in operations

Evaluation status

Relevant, calculated

Metric tonnes CO2e

5,500

Emissions calculation methodology

Seagate tracks waste generated in operations. Metrics include the amount of waste generated by type and disposal method. For sludge waste, percentages of solid material suspended in sludge were taken from literature to estimate weight of waste in sludge. U.S. EPA WARM V15 derived emission factors were used to estimate emissions for this category.

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

0

Please explain

Business travel

Evaluation status

Relevant, calculated

Metric tonnes CO2e

15,000

Emissions calculation methodology

Business travel emissions for Seagate include air travel. Emissions are estimated using emission factors from DEFRA 2019 Guidance.

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

100

Please explain

Employee commuting

Evaluation status

Relevant, calculated

Metric tonnes CO2e

25,000

Emissions calculation methodology

Emissions from employee commuting include buses and shuttles hired by Seagate but owned and operated by an external party that transports Seagate employees to and from work. Activity data used includes miles travelled, fuel type, and fuel economy of each vehicle by vehicle type. Personal commuting activities of Seagate employees were assessed via online surveys. Activity data used includes miles travelled, round trips per week, fuel type and vehicle type. Emissions factors from the EPA's MRR and US National Inventory, the EPA's Emissions Factor Hub.

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

60

Please explain

Upstream leased assets

Evaluation status

Relevant, calculated

Metric tonnes CO2e

3,400

Emissions calculation methodology

Seagate uses square footage provided through lease records to calculate emissions from this category. Upstream leased assets include all facilities leased and occupied by Seagate that are beyond Seagate's operational control due to the conditions of the lease. Emission intensities for the 2019 inventory come from the latest version of the Commercial Buildings Energy Consumption Survey (CBECS), released in September 2015. Where the building type is unknown, an intensity from Seagate's operations is used. The appropriate emission factor for electricity and natural gas are then applied based on the location for each facility.

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

0

Please explain

Downstream transportation and distribution

Evaluation status

Relevant, calculated

Metric tonnes CO2e

9,000

Emissions calculation methodology

Seagate uses hard drive production data, and emissions from the distribution phase of Seagate's public LCAs to allocate emissions from downstream transportation and distribution. Emissions from the distribution phase are split between upstream and downstream transportation and distribution based on data from Seagate's tier 1 suppliers. This category does not include transportation and distribution emissions of non-hard drive related activities. Most of Seagate's products are hard drive related.

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

0

Please explain

Processing of sold products

Evaluation status

Relevant, calculated

Metric tonnes CO2e

1,300

Emissions calculation methodology

No primary data on installation energy are available. Therefore, assumptions were made to estimate the emissions associated with processing Seagate's hard drive related products. Drives are installed into computers either manually or by machine. Once drives are installed, there is a testing and setup process to ensure the computer is functioning. Seagate assumes all drives sold have some post processing, although a small number of drives are either installed in Seagate facilities, or do not have post processing. Electricity use for this processing is estimated based on hard drive production data and power draw provided in Seagate's public LCAs and an assumption that drives run for 5 hours during post-processing. Emissions are estimated for the electricity use using an average electricity factor based on Seagate's manufacturing locations and scope 2 location-based emission factors. Emission factors are from EPA's eGRID2018 for the US and IEA's "CO2 Emissions from Fuel Combustion" (2013 Edition) for outside the US.

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

0

Please explain

Use of sold products

Evaluation status

Relevant, calculated

Metric tonnes CO2e

8,000,000

Emissions calculation methodology

Seagate uses hard drive production data, and emissions from the use phase of Seagate's public LCAs to estimate emissions from the use of sold products. This category does not include use of non-hard drive related products. Most of Seagate's products are hard drive related.

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

0

Please explain

End of life treatment of sold products

Evaluation status

Relevant, calculated

Metric tonnes CO2e

50,000

Emissions calculation methodology

Seagate uses hard drive production data, and emissions from the end of life phase of Seagate's public LCAs to estimate emissions from the end of life treatment of sold products. This category does not include end of life of non-hard drive related products. Most of Seagate's products are hard drive related.

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

0

Please explain

Downstream leased assets

Evaluation status

Not relevant, explanation provided

Please explain

Seagate does not lease out any facilities that are owned or have long have long term capital leases on. Thus, the emissions in this category are zero and are not relevant.

Franchises

Evaluation status

Not relevant, explanation provided

Please explain

Seagate does not franchise any operations, thus the emissions in this category are zero and not relevant.

Investments

Evaluation status

Not relevant, explanation provided

Please explain

Seagate does not currently have any investments that are not already captured in the Scope 1 and 2 inventory. Periodically, we evaluate investing in complementary technology and if such an opportunity arises in the future, we will report on this emission category when relevant.

Other (upstream)

Evaluation status

Please explain

Other (downstream)

Evaluation status

Please explain

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

0.00011

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

1,138,218

Metric denominator

unit total revenue

Metric denominator: Unit total

10,390,000,000

Scope 2 figure used

Market-based

% change from previous year

6.7

Direction of change

Increased

Reason for change

Scope 1 and 2 emissions decreased slightly (0.8%) due to emission reduction activities, including optimizing processes, updating building controls, and updating to more efficient lighting. The 7.1% decrease in revenue and a slight decrease in emissions result in an overall 6.8% increase in GHG intensity per dollar of revenue.

Intensity figure

28.1

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

1,138,218

Metric denominator

full time equivalent (FTE) employee

Metric denominator: Unit total

40,500

Scope 2 figure used

Market-based

% change from previous year

5.3

Direction of change

Increased

Reason for change

Scope 1 and 2 emissions decreased slightly (0.8%) due to emission reduction activities, including optimizing processes, updating building controls, and updating to more efficient lighting. The 5.8% decrease in FTE and slight decrease in emissions result in an overall 5.3% decrease in GHG intensity per FTE.

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
CH4	7	IPCC Fifth Assessment Report (AR5 – 100 year)
N2O	21	IPCC Fifth Assessment Report (AR5 – 100 year)
HFCs	226,498	IPCC Fifth Assessment Report (AR5 – 100 year)
PFCs	772	IPCC Fifth Assessment Report (AR5 – 100 year)
SF6	1,067	IPCC Fifth Assessment Report (AR5 – 100 year)
CO2	14,785	IPCC Fifth Assessment Report (AR5 – 100 year)
NF3	5,146	IPCC Fifth Assessment Report (AR5 – 100 year)
Other, please specify 404A	9	IPCC Fifth Assessment Report (AR5 – 100 year)
Other, please specify 407C	18	IPCC Fifth Assessment Report (AR5 – 100 year)

Other, please specify 410A	0	IPCC Fifth Assessment Report (AR5 – 100 year)
Other, please specify 508B	25	IPCC Fifth Assessment Report (AR5 – 100 year)
Other, please specify Fluorinated Ethers	0	IPCC Fifth Assessment Report (AR5 – 100 year)
Other, please specify Hydrocarbons	14,096	IPCC Fifth Assessment Report (AR5 – 100 year)

C7.2

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

Country/Region	Scope 1 emissions (metric tons CO2e)
China	4,322
India	50
United Kingdom of Great Britain and Northern Ireland	2,852
Malaysia	540
Singapore	225,270
Thailand	12,305
United States of America	16,657
Other, please specify Rest of World	450

C7.3

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

By facility

C7.3b

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

Facility	Scope 1 emissions (metric tons CO2e)	Latitude	Longitude
China W	4,322	31.56887	120.28857
China S	0	31.299	120.5853
India P	50	18.56386	73.88531

United Kingdom S	2,852	53.783631	-7.447533
Malaysia J	540	1.4655	103.7578
Malaysia P	0	5.326175	100.286769
Malaysia S	0	2.708687	101.999654
Singapore W	224,172	1.434258	103.803791
Singapore S	1,098	1.295604	103.791253
Thailand K	11,039	14.97066	102.10196
Thailand T	1,266	13.62357	100.633914
US N	11,243	44.861049	-93.345631
US L	1,519	40.156617	-105.172488
US SK	2,182	44.784958	-93.473336
US O	146	35.464366	-97.696081
US C	182	37.320624	-122.032156
US SV	0	37.048081	-122.017134
US F	1,385	37.47609	-121.93189
Non-stationary sources	450	37.32062	-122.03216

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)
China	146,346	146,346	190,236	0
India	4,057	4,057	4,891	0
United Kingdom of Great Britain and Northern Ireland	19,370	28,780	75,806	0
Malaysia	65,728	65,728	95,322	0
Singapore	208,663	208,663	414,771	0
Thailand	325,539	325,539	621,436	0
United States of America	99,951	96,660	191,625	0
Other, please specify Rest of World	0	0	0	0

C7.6

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

By facility

C7.6b

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

Facility	Scope 2, location-based (metric tons CO2e)	Scope 2, market-based (metric tons CO2e)
China W	145,404	145,404
China S	942	942
India P	4,057	4,057
United Kingdom S	19,370	28,780
Malaysia J	65,003	65,003
Malaysia P	542	542
Malaysia S	183	183
Singapore W	194,826	194,826
Singapore S	13,836	13,836
Thailand K	290,983	290,983
Thailand T	34,556	34,556
US N	54,784	54,784
US L	20,706	20,706
US SK	16,920	16,920
US O	1,918	1,918
US SV	10	10
US F	5,174	2,141
US C	439	182
Non-stationary sources	0	0

C7.9

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

Decreased

C7.9a

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

	Change in emissions (metric tons CO2e)	Direction of change	Emissions value (percentage)	Please explain calculation
Change in renewable energy consumption	0	No change	0	Our onsite solar facility produced a similar amount of renewable energy in 2019 as it did in 2018, therefore this is no change in renewable energy consumption.
Other emissions reduction activities	6,131	Decreased	0.53	Emissions reductions projects implemented during the reporting year, including updating building controls, lighting, motors, and drives resulted in a decrease in emissions [6131 / 1161573 = 0.53%].
Divestment	0	No change	0	Seagate had no divestments during the reporting year [0 / 1161573 = 0%].
Acquisitions	0	No change	0	Seagate had no acquisitions during the reporting year [0 / 1161573 = 0%].
Mergers	0	No change	0	Seagate had no mergers during the reporting year [0 / 1161573 = 0%].
Change in output	30,967	Decreased	2.67	2.67% of emissions reductions are attributed to decreases in output [30967 / 1161573 = 2.67%].
Change in methodology	13,716	Increased	1.18	Adjusted 2018 base year following GHG protocol guidelines. Changes led to an increase in emissions [13716 / 1161573 = 1.18%].
Change in boundary				
Change in physical operating conditions				

Unidentified				
Other				

C7.9b

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

Market-based

C8. Energy

C8.1

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

More than 10% but less than or equal to 15%

C8.2

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

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

C8.2a

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

	Heating value	MWh from renewable sources	MWh from non-renewable sources	Total (renewable and non-renewable) MWh
Consumption of fuel (excluding feedstock)	HHV (higher heating value)	0	67,575	67,575
Consumption of purchased or acquired electricity		0	1,586,842	1,586,842
Consumption of purchased or acquired cooling		0	6,006	6,006
Consumption of self-generated non-fuel renewable energy		943		943
Total energy consumption		943	1,660,423	1,661,366

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	Yes
Consumption of fuel for the generation of steam	No
Consumption of fuel for the generation of cooling	No
Consumption of fuel for co-generation or tri-generation	No

C8.2c

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

Fuels (excluding feedstocks)

Propane Gas

Heating value
HHV (higher heating value)

Total fuel MWh consumed by the organization
2,883

Emission factor
0.00151

Unit
metric tons CO2e per liter

Emissions factor source
EPA Emission Factor Hub, March 2020

Comment
0

Fuels (excluding feedstocks)
Natural Gas

Heating value
HHV (higher heating value)

Total fuel MWh consumed by the organization
62,489

Emission factor
0.18123

Unit
metric tons CO2e per MWh

Emissions factor source
EPA Emission Factor Hub, March 2020

Comment
0

Fuels (excluding feedstocks)
Fuel Oil Number 2

Heating value
HHV (higher heating value)

Total fuel MWh consumed by the organization
436

Emission factor
0.00271

Unit
metric tons CO2e per liter

Emissions factor source
EPA Emission Factor Hub, March 2020

Comment
0

Fuels (excluding feedstocks)
Diesel

Heating value
HHV (higher heating value)

Total fuel MWh consumed by the organization
4

Emission factor
0.0027

Unit
metric tons CO2e per liter

Emissions factor source
EPA Emission Factor Hub, March 2020

Comment
0

Fuels (excluding feedstocks)
Motor Gasoline

Heating value
HHV (higher heating value)

Total fuel MWh consumed by the organization
3

Emission factor
0.00233

Unit
metric tons CO2e per liter

Emissions factor source

EPA Emission Factor Hub, March 2020

Comment

0

Fuels (excluding feedstocks)

Jet Kerosene

Heating value

HHV (higher heating value)

Total fuel MWh consumed by the organization

1,809

Emission factor

0.0026

Unit

metric tons CO2e per liter

Emissions factor source

EPA Emission Factor Hub, March 2020

Comment

0

C8.2d

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

	Total Gross generation (MWh)	Generation that is consumed by the organization (MWh)	Gross generation from renewable sources (MWh)	Generation from renewable sources that is consumed by the organization (MWh)
Electricity	943	943	943	943
Heat	0	0	0	0
Steam	0	0	0	0
Cooling	0	0	0	0

C8.2e

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

Sourcing method

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

Low-carbon technology type

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

MWh consumed accounted for at a zero emission factor

Comment

C9. Additional metrics

C9.1

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

Description

Energy usage

Metric value

1,661,661

Metric numerator

Total energy use (MWh)

Metric denominator (intensity metric only)

NA

% change from previous year

1

Direction of change

Decreased

Please explain

Description

Other, please specify

Water Withdrawals

Metric value

8,029

Metric numerator

Total Water Withdrawals (megaliters)

Metric denominator (intensity metric only)

NA

% change from previous year

3

Direction of change

Decreased

Please explain

C10. Verification

C10.1

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

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

C10.1a

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

Verification or assurance cycle in place

Annual process

Status in the current reporting year

Complete

Type of verification or assurance

Limited assurance

Attach the statement

Seagate 2019 Assurance Statement_FINAL_8.12.2020.pdf

Page/ section reference

Whole Document

Relevant standard

ISO14064-3

Proportion of reported emissions verified (%)

100

C10.1b

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

Scope 2 approach

Scope 2 location-based

Verification or assurance cycle in place

Annual process

Status in the current reporting year

Complete

Type of verification or assurance

Limited assurance

Attach the statement

Seagate 2019 Assurance Statement_FINAL_8.12.2020.pdf

Page/ section reference

Whole Document

Relevant standard

ISO14064-3

Proportion of reported emissions verified (%)

100

Scope 2 approach

Scope 2 market-based

Verification or assurance cycle in place
Annual process

Status in the current reporting year
Complete

Type of verification or assurance
Limited assurance

Attach the statement

Seagate 2019 Assurance Statement_FINAL_8.12.2020.pdf

Page/ section reference
Whole Document

Relevant standard
ISO14064-3

Proportion of reported emissions verified (%)
100

C10.1c

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

Scope 3 category
Scope 3: Purchased goods and services

Verification or assurance cycle in place
Annual process

Status in the current reporting year
Complete

Type of verification or assurance
Limited assurance

Attach the statement

Seagate 2019 Assurance Statement_FINAL_8.12.2020.pdf

Page/section reference
Whole Document

Relevant standard
ISO14064-3

Proportion of reported emissions verified (%)

100

Scope 3 category

Scope 3: Capital goods

Verification or assurance cycle in place

Annual process

Status in the current reporting year

Complete

Type of verification or assurance

Limited assurance

Attach the statement

Seagate 2019 Assurance Statement_FINAL_8.12.2020.pdf

Page/section reference

Whole Document

Relevant standard

ISO14064-3

Proportion of reported emissions verified (%)

100

Scope 3 category

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

Verification or assurance cycle in place

Annual process

Status in the current reporting year

Complete

Type of verification or assurance

Limited assurance

Attach the statement

Seagate 2019 Assurance Statement_FINAL_8.12.2020.pdf

Page/section reference

Whole Document

Relevant standard

ISO14064-3

Proportion of reported emissions verified (%)

100

Scope 3 category

Scope 3: Upstream transportation and distribution

Verification or assurance cycle in place

Annual process

Status in the current reporting year

Complete

Type of verification or assurance

Limited assurance

Attach the statement

Seagate 2019 Assurance Statement_FINAL_8.12.2020.pdf

Page/section reference

Whole Document

Relevant standard

ISO14064-3

Proportion of reported emissions verified (%)

100

Scope 3 category

Scope 3: Waste generated in operations

Verification or assurance cycle in place

Annual process

Status in the current reporting year

Complete

Type of verification or assurance

Limited assurance

Attach the statement

Seagate 2019 Assurance Statement_FINAL_8.12.2020.pdf

Page/section reference

Whole Document

Relevant standard

ISO14064-3

Proportion of reported emissions verified (%)

100

Scope 3 category

Scope 3: Business travel

Verification or assurance cycle in place

Annual process

Status in the current reporting year

Complete

Type of verification or assurance

Limited assurance

Attach the statement

Seagate 2019 Assurance Statement_FINAL_8.12.2020.pdf

Page/section reference

Whole Document

Relevant standard

ISO14064-3

Proportion of reported emissions verified (%)

100

Scope 3 category

Scope 3: Employee commuting

Verification or assurance cycle in place

Annual process

Status in the current reporting year

Complete

Type of verification or assurance

Limited assurance

Attach the statement

Seagate 2019 Assurance Statement_FINAL_8.12.2020.pdf

Page/section reference

Whole Document

Relevant standard

ISO14064-3

Proportion of reported emissions verified (%)

100

Scope 3 category

Scope 3: Upstream leased assets

Verification or assurance cycle in place

Annual process

Status in the current reporting year

Complete

Type of verification or assurance

Limited assurance

Attach the statement

Seagate 2019 Assurance Statement_FINAL_8.12.2020.pdf

Page/section reference

Whole Document

Relevant standard

ISO14064-3

Proportion of reported emissions verified (%)

100

Scope 3 category

Scope 3: Downstream transportation and distribution

Verification or assurance cycle in place

Annual process

Status in the current reporting year

Complete

Type of verification or assurance

Limited assurance

Attach the statement

Seagate 2019 Assurance Statement_FINAL_8.12.2020.pdf

Page/section reference

Whole Document

Relevant standard

ISO14064-3

Proportion of reported emissions verified (%)

100

Scope 3 category

Scope 3: Processing of sold products

Verification or assurance cycle in place

Annual process

Status in the current reporting year

Complete

Type of verification or assurance

Limited assurance

Attach the statement

Seagate 2019 Assurance Statement_FINAL_8.12.2020.pdf

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Whole Document

Relevant standard

ISO14064-3

Proportion of reported emissions verified (%)

100

Scope 3 category

Scope 3: Use of sold products

Verification or assurance cycle in place

Annual process

Status in the current reporting year

Complete

Type of verification or assurance

Limited assurance

Attach the statement

Seagate 2019 Assurance Statement_FINAL_8.12.2020.pdf

Page/section reference

Whole Document

Relevant standard

ISO14064-3

Proportion of reported emissions verified (%)

100

Scope 3 category

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

Verification or assurance cycle in place

Annual process

Status in the current reporting year

Complete

Type of verification or assurance

Limited assurance

Attach the statement

Seagate 2019 Assurance Statement_FINAL_8.12.2020.pdf

Page/section reference

Whole Document

Relevant standard

ISO14064-3

Proportion of reported emissions verified (%)

100

C10.2

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

Yes

C10.2a

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

Disclosure module verification relates to	Data verified	Verification standard	Please explain
C8. Energy	Other, please specify Energy Consumption	ISEA3000	We received verification of our organization-wide energy usage following the ISAE 3000 standard for the first time in 2019. We anticipate verifying our energy annually.

C11. Carbon pricing

C11.1

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

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

C11.1d

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

Seagate anticipates being subject to the Singapore Carbon Tax starting in 2020. We are implementing mitigation measures to reduce the burden of this tax. Over the past several years Seagate has been working to identify, test, and deploy the use of a lower-emissions process chemical, currently used at the Singapore facility. The original replacement chemical failed our evaluation, and we are reviewing an additional replacement chemical. Therefore, in 2019 we focused on efficiency of the process thus reducing tax implications with a long-term plan to replace the chemical. In addition, two of our Thailand manufacturing sites made a commitment in 2018 to ISO 50001 certification in 2019 to improve energy management practices. Seagate is working toward implementing an energy management system at all our manufacturing sites and have them certified in ISO 50001 over the next two 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

Change internal behavior

GHG Scope

Scope 1

Scope 2

Application

Seagate has included a cost of carbon in capital project calculations for facilities to help internal stakeholders understand the climate-related impacts of proposed projects.

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

Variance of price(s) used

Seagate uses uniform pricing in which a single price is applied throughout the company.

Type of internal carbon price

Shadow price

Impact & implication

Seagate has included a cost of carbon in capital project calculations for facilities to help internal stakeholders understand the climate-related impacts of proposed projects. Seagate applies a cost of carbon to all capital projects to assess the relative environmental impacts of individual projects. The cost of carbon is addressed for 100% of Scope 1 and Scope 2 GHG emissions for proposed capital projects.

C12. Engagement

C12.1

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

Yes, our suppliers

Yes, our customers

C12.1a

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

Type of engagement

Information collection (understanding supplier behavior)

Details of engagement

Collect climate change and carbon information at least annually from suppliers

% of suppliers by number

100

% total procurement spend (direct and indirect)

80

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

12

Rationale for the coverage of your engagement

Coverage is 100% of Seagate's direct suppliers, which provide components and parts for products. These suppliers, which make up 80% of our total direct and indirect procurement spend, were selected because they represent the majority of Seagate's supplier spend (>50%). As we continue to review supplier responses via the RBA-Online tool, we will prioritize engagement with our suppliers based on those suppliers showing the greatest opportunity for improvement or representing the greatest risk to Seagate.

Impact of engagement, including measures of success

Via the RBA-Online tool, suppliers respond to a standardized questionnaire, providing quantitative energy, GHG, water, and waste data, as well as qualitative information on environmental management practices. Once received, this information is evaluated internally at Seagate to better understand the maturity of our suppliers with regard to environmental management practices, and identity areas to improve performance over time. Suppliers are motivated to report given the importance Seagate places on the EICC environmental reporting initiative. Seagate has a metric to drive supplier reporting, and the Materials team follows up with suppliers to ensure responses are received. Success is measured based on the number of suppliers that respond.

Comment

Seagate requests information on supplier energy/GHG, water, and waste indicators via the Responsible Business Alliance (RBA, formerly the Electronic Industry Citizenship Coalition (EICC)) environmental reporting initiative.

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 education customers about your climate change performance and strategy

% of customers by number

100

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

81

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

We selected this method of engagement because it is readily available to 100% of our customers.

Impact of engagement, including measures of success

We provide detailed information on our environmental programs and performance through annual reports and our website. Our measure of success is the successful release of our annual environmental report.

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

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

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

We selected this method of engagement because it is readily available to 100% of our customers. Additionally, we continuously update a two-page specification sheet for each of our drives, which includes information from LCAs, such as energy use and circularity.

These spec sheets help educate consumers about the differences between our drives and allow consumers to make informed purchases. Additionally, we continuously update a two-page specification sheet for each of our drives, which includes information from LCAs, such as energy use and circularity. These spec sheets help educate consumers about the differences between our drives and allow consumers to make informed purchases.

Impact of engagement, including measures of success

We continuously update a two-page specification sheet for each of our drives, which includes information from LCAs, such as energy use and circularity. To date, we have conducted ISO 14044 compliant LCAs across our product portfolio, identifying opportunities to reduce the energy needs of products, particularly in the customer use phase. These spec sheets help educate consumers about the differences between our drives and allow consumers to make informed purchases. Our measure of success is the proportion of our products for which we are able to produce spec sheets.

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?

Other

C12.3e

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

One of our key industry collaborations is with the Responsible Business Alliance (RBA, formerly the Electronic Industry Citizenship Coalition (EICC)), a cooperative of leading electronics companies working to improve social, ethical and environmental responsibility in the global electronics supply chain. Seagate was a founding member of RBA (then EICC) in 2004. We adopted the RBA Code of Conduct in 2007 and continue to maintain full and active membership in this organization. A revised RBA code came into effect in 2015, which includes greenhouse gas emissions requirements, which will help encourage action to mitigate GHG emissions throughout our supply chain.

Additionally, we are a signatory to the United Nations Global Compact, a strategic policy initiative for businesses that are committed to aligning their operations and strategies with ten universally accepted principles around human rights, labor, environment and anti-corruption. We have participated in activities (e.g. NGO forums) that engage policy makers in the area of climate change on specific topics, such as product energy efficiency ratings. These forums take place at least annually; Seagate participates in these activities alongside many other companies. During these forums, Seagate and other companies have advocated for industry level standards that can efficiently assess product-level impacts associated with climate change. Seagate recognizes that climate change is real and will affect the social, economic and environmental aspects of everyone's life in one way or another in the not too distant future. Reduction in greenhouse gas (GHG) emissions identified by various studies and reports, including the work of the Intergovernmental Panel on Climate Change (IPCC), is necessary to mitigate the impacts of climate change. Seagate is a member of the UNGC's U.S. Network and

regularly engages in membership meetings, including sponsorship of meetings when the opportunity presents.

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?

Our strategy on climate change is a component of our broader Global Citizenship program, of which our CEO has direct responsibility. Reporting metrics have been developed and progress against the metrics is reported to Senior Management, which ensures that our all our activities are in alignment and as an organization, we are driving toward a common objective that crosses business divisions and geographies.

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 voluntary sustainability report

Status

Underway – previous year attached

Attach the document

fy-2019-gc-annual-report.pdf

Page/Section reference

Page 47-53

Content elements

Governance
Strategy
Risks & opportunities
Emissions figures
Emission targets
Other metrics

Comment

Publication

In mainstream reports

Status

Complete

Attach the document

Seagate 10-K_ 2019.pdf

Page/Section reference

Page 27

Content elements

Risks & opportunities

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	Chief Executive Officer	Chief Executive Officer (CEO)