Welcome to your CDP Climate Change Questionnaire 2020

C0. Introduction

C0.1

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

Western Digital creates environments for data to thrive. As a leader in data infrastructure, the company is driving the innovation needed to help customers capture, preserve, access and transform an ever-increasing diversity of data. Everywhere data lives, from advanced data centers to mobile sensors to personal devices, our industry-leading solutions deliver the possibilities of data. Western Digital® data-centric solutions are marketed under the Western Digital®, G-Technology™, SanDisk® and WD® brands.

We believe responsible and sustainable business practices support our long-term success. As a company, we are deeply committed to protecting and supporting our people, our environment, and our communities. That commitment is reflected through sustainability-focused initiatives as well as day-to-day activities, including our adoption of sustainability-focused policies and procedures, our publicly-recognized focus on fostering an inclusive workplace, our constant drive toward more efficient use of materials and energy, our careful and active management of our supply chain, our community-focused volunteerism programs and philanthropic initiatives, and our impactful, globally-integrated ethics and compliance program.

- We seek to protect the human rights and civil liberties of our employees through policies, procedures, and programs that avoid risks of compulsory and child labor, both within our company and throughout our supply chain.
- We foster a workplace of dignity, respect, diversity, and inclusion through our recruiting and advancement practices, internal communications, and employee resource groups.
- We educate our employees annually on relevant ethics and compliance topics, publish accessible guidance on ethical issues and related company resources in our Global Code of Conduct, and encourage reporting of ethical concerns through any of several global and local reporting channels.
- We support local communities throughout the world, focusing on hunger relief, environmental quality, and STEM (science, technology, engineering, and math) education, especially for underrepresented and underprivileged youth.
- We utilize a robust integrated management system, with associated policies and procedures, to evaluate and manage occupational health and safety risks, environmental compliance, and chemical and hazardous substance risks.
- We innovate to reduce the energy used by our products, the energy used to manufacture them, and the amount of new materials required to manufacture them.

Financial, sustainability, and ESG investor information is available at investor.wdc.com and www.westerndigital.com/company/corporate-sustainability.

C0.2

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

	Start date	End date	Indicate if you are providing emissions data for past reporting years	Select the number of past reporting years you will be providing emissions data for
Reporting year	January 1, 2019	December 31, 2019	Yes	3 years

C0.3

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

China
India
Israel
Japan
Malaysia
Philippines
Thailand
United States of America

C0.4

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

USD

C0.5

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

Operational control

C1. Governance

C1.1

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

Yes

C1.1a

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

Position of individual(s)	Please explain
Director on board	The Board periodically reviews information relating to the potential impact climate-related issues and natural disasters on business continuity and how to mitigate risks. This information has been presented to the Board by the CEO, CFO, CLO and other members of management. The Audit Committee of the Board has specific responsibility for reviewing the company's enterprise risk management program, including as it relates to climate risk, and oversees the company's strategy for mitigating those risks. The Governance Committee of the Board has specific responsibility for sustainability issues and opportunities, including climate change, and oversees the company's strategy for sustainability generally.
Chief Executive Officer (CEO)	The CEO, CFO, CLO and other executive leaders regularly review information about the potential impact of climate related issues and natural disasters on business continuity and financial performance. They oversee plans to mitigate related risks and present that information to the Board.
Board-level committee	The Audit Committee of the Board has specific responsibility for reviewing the company's enterprise risk management program, including as it relates to climate risk, and oversees the company's strategy for mitigating those risks. The Governance Committee of the Board has specific responsibility for sustainability issues and opportunities, including climate change, and oversees the company's strategy for sustainability generally.

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 Reviewing and guiding major plans of action Reviewing and guiding risk management policies Reviewing and guiding annual budgets	Enterprise Risk Management performs and independent audit looking across business, financial, and compliance risk and reports back into executive leadership. The Board periodically reviews information relating to the potential impact of climate-related issues and natural disasters on business continuity and how to mitigate risks. This information has been presented to the Board by the CEO, CFO, CLO and other members of management. The Audit Committee of the Board has specific responsibility for reviewing the

	Reviewing and guiding business plans Monitoring implementation and performance of objectives	company's enterprise risk management program, including as it relates to climate risk, and oversees the company's strategy for mitigating those risks. The Governance Committee of the Board has specific responsibility for sustainability issues and opportunities, including climate change, and oversees the company's strategy for sustainability generally.

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, please specify Vice President, Global Operations	Both assessing and managing climate-related risks and opportunities	Annually

C1.2a

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

The Vice President, Global Operations leads Western Digital's Business Continuity Program. Responsibility is assigned to this position because it is an executive level role with the authority to implement necessary risk mitigation. He/she is responsible for collecting information relating to climate and natural disasters that may impact the company, presenting that information to the executive leadership team, and implementing initiatives to mitigate any related risks.

C1.3

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

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

C1.3a

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

Entitled to incentive	Type of incentive	Activity inventivized	Comment

All employees	Monetary reward	Energy reduction project Energy reduction target Efficiency project Efficiency target Behavior change related indicator Supply chain engagement	Western Digital Corporation includes several types of awards within our performance management framework to incentivize and recognize employees for exceptional contributions and performance. These include spot awards ("High-5") for performance/accomplishments "above-and-beyond", as well as compensation-based awards (short term incentives on an annual basis, and long term incentives geared toward recognition and retention) for exceptional and sustained contributions. Accomplishments in all areas, including upholding and improving our sustainability and/or resiliency posture, are eligible for recognition.
All employees	Non-monetary reward	Energy reduction project Energy reduction target Efficiency project Efficiency target Behavior change related indicator Supply chain engagement	Western Digital Corporation includes several types of awards within our performance management framework to incentivize and recognize employees for exceptional contributions and performance. These include spot awards ("High-5") for performance/accomplishments "above-and-beyond", as well as compensation-based awards (short term incentives on an annual basis, and long term incentives geared toward recognition and retention) for exceptional and sustained contributions. Accomplishments in all areas, including upholding and improving our sustainability and/or resiliency posture, are eligible for recognition.

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	Aligned with financial planning
Medium-term	1	3	Aligned with financial planning
Long-term	3	5	Aligned with financial and strategic planning

C2.1b

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

When addressing whether the liabilities related to risks and opportunities are substantive, Western Digital takes into account both quantitative and qualitative factors. Quantitatively, we consider the impact on various financial metrics depending on the circumstances, such as: revenue; total, current or fixed assets; cash and cash equivalents; operating income; working capital; and net income. Qualitatively, the factors we consider depend on the event or issue we are evaluating, but could include: supply chain impact; consumer spending impacts; competitive impact; alternatives, substitutions or replacements; legal or regulatory requirements; contractual requirements; or impact on strategic relationships. On a case-by-case basis we assess whether quantitative or quantitative impacts are large enough and likely enough to occur to be considered substantive and warrant further action.

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

Western Digital assesses climate-related risks in a multitude of ways, including: (1) Business forecast from strategic planning; (2) Business continuity planning by various business units within the company, including business impact analyses and risk assessments; (3) Energy, water and other resource evaluations; (4) Severe weather events; (5) Customer requests. Climate-related risks and opportunities are evaluated in the less than 1 year to 5 year time frame as part of this process, and monitored by Internal Audit, REO and other potentially impacted business units (e.g., Global Procurement, Global Supply Chain).

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	Western Digital stays apprised of global regulatory and compliance requirements that may impact our products and operations. In many cases we rely on internal and 3rd party audits of our management systems and subsequent certifications of awareness and compliance to current regulations. We also regularly run materiality assessments to evaluate company-specific risks and opportunities relating to sustainability, including climate change. Climate related risks we monitor may include, but are not limited to: increasing pricing or taxing of GHG emissions; increasing emissions-reporting obligations; mandates on and regulation of existing products and services; possible exposure to litigation; monitoring increasing operating costs (e.g., higher compliance costs, increased insurance premiums); potential impacts on existing assets due to policy changes; impact on brand/credibility; increased costs and/or reduced demand for products and services resulting from fines and judgments.
Emerging regulation	Relevant, always included	Western Digital is committed to maintaining compliance with all applicable legal requirements and obligations as a matter of corporate policy. We have established robust regulatory tracking and assessment procedures to assure we remain aware of emerging regulations applicable to our business; and that we proactively develop and implement compliance programs in advance of the effective date of such regulations. We periodically review our compliance management capability and performance during our preparations for annual internal and external, third party audits. In many cases, as a leading company, we are participating in review or input to climate-related emerging regulatory or compliance requirements that impact our operation, suppliers, clients, and the communities we operate. We also regularly run materiality assessments to evaluate company-specific risks and opportunities relating to sustainability, including climate change.

Technology	Relevant, always included	New technology is always being evaluated in our operations and Research and Development (R&D) efforts to be more resource-efficient, sustainable and resilient to fluctuations in availability and cost. These are significant customer satisfaction and competitive advantage issues which benefit from Western Digital's continual improvement in the energy efficient design and performance of our products; and which in turn also benefit our customers by helping reduce their energy requirements and resulting Green House Gas emissions. Technology considerations are core to our financial, sustainability, and resiliency management systems. Some examples of risks considered in climate-related risk assessments may include: substitution of existing products and services with lower energy and, potentially, GHG emissions options; successful and unsuccessful investment in new technologies; costs or savings to transition to lower emissions technology; write-offs and early retirement of existing assets due to technology changes; changes in demand for products and services; R&D expenditures in new and alternative technologies; capital investments in technology development; costs to adopt/deploy new practices and processes. We also regularly run materiality assessments to evaluate company-specific risks and opportunities relating to sustainability, including climate change.
Legal	Relevant, always included	Climate-related legal risks require timely compliance with new legal requirements and sustained compliance with existing requirements, and that compliance is key to maintaining and growing our access to the global markets where we sell our products. Of particular concern is access to markets where there may be exposure to litigation, remediation liability or emerging country requirements for reporting. Our legal risks are often related to regulation, and such climate-related risks may include: increasing pricing or taxing of GHG emissions; increasing emissions-reporting obligations; mandates on and regulation of existing products and services; possible exposure to litigation; monitoring increasing operating costs (e.g., higher compliance costs, increased insurance premiums); potential impacts on existing assets due to policy changes; impact on brand/credibility; and increased costs and/or reduced demand for products and services resulting from fines and judgments. We also regularly run materiality assessments to evaluate company-specific risks and opportunities relating to sustainability, including climate change.
Market	Relevant, always included	Climate related market risks are certainly considered in risk assessments. Specific concerns for Western Digital include: maintaining accuracy and legal review of climate-change related statements and commitments by Western Digital, and monitoring changing customer behaviour, specifically, as is relates to perception of Western Digital's operations and products in relation to mitigating climate change. Uncertainty in market signals as political and social

		risks vacillate in accepting or rejecting action associated with Climate change risks. Climate change associated risks may increase cost of raw materials due to supply chain or business disruption in Western Digital or supplier operations. Specific risks for Western Digital are associated with electricity costs from fossil fuel related electricity generation and the associated GHG emissions. We also regularly run materiality assessments to evaluate company-specific risks and opportunities relating to sustainability, including climate change.
Reputation	Relevant, always included	Climate change issues and how we are responding to them can influence our reputation as a responsible corporation and supplier and can impact our customers' confidence in our ability to manage our risks and protect their reputation by demonstrating they are engaging in responsible sourcing practices. Our performance as an upstream supplier affects the reputation of our customers, especially with respect to their Scope 3 GHG emissions and water stewardship concerns. Our products are considered in our clients' energy usage profile of their products and as such, we must respond to increasing competitive demand on our products to be more efficient. End-of-life considerations on our products in relation to waste streams and close-loop efforts. We also regularly run materiality assessments to evaluate company-specific risks and opportunities relating to sustainability, including climate change.
Acute physical	Relevant, always included	Acute physical risks associated with climate change are included by Western Digital in annual risk assessments. Risks considered may include: business continuity planning review for near term risks; increased severity of extreme weather events such as cyclones and flood; reduced revenue from decreased production capacity (e.g., transport difficulties, supply chain interruptions); reduced revenue and higher costs from negative impacts on workforce (e.g., health, safety, absenteeism); write-offs and early retirement of existing assets (e.g., damage to property and assets in "high-risk" locations); increased operating costs (e.g., inadequate water supply, increasing energy costs); increased capital costs (e.g., damage to facilities); reduced revenues from lower sales/output; increased insurance premiums and potential for reduced availability of insurance on assets in "high-risk" locations. We also regularly run materiality assessments to evaluate company-specific risks and opportunities relating to sustainability, including climate change.
Chronic physical	Relevant, always included	Chronic physical risks associated with climate change are included in longer term risk assessments. For example, Western Digital has undertaken and will periodically update "Black Swan" vulnerability assessments on assets and supply chains. In these reviews changes in scenarios consider climate related risks and may include, but are not limited to: Precipitation patterns, Extreme variability in weather patterns, Rising mean temperatures, Rising sea levels, and Resource

		availability. We also regularly run materiality assessments to evaluate company-specific risks and opportunities relating to sustainability, including climate change.

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?

Upstream

Risk type & Primary climate-related risk driver

Market

Increased cost of raw materials

Primary potential financial impact

Increased indirect (operating) costs

Company-specific description

Increased monitoring and compliance costs of various greenhouse gas emission schemes (e.g., cap and trade, carbon taxes, etc.) are passed on to Western Digital as part of our procurement of goods and services from our suppliers. For example, such requirements impact our operations in China and California. This is particularly true for our procurement of energy, as the power sector is impacted by requirements to decarbonize.

Time horizon

Short-term

Likelihood

More likely than not

Magnitude of impact

Medium-low

Are you able to provide a potential financial impact figure?

No, we do not have this figure

Potential financial impact figure (currency)

Potential financial impact figure – minimum (currency)

Potential financial impact figure – maximum (currency)

Explanation of financial impact figure

Financial impact not yet estimated.

Cost of response to risk

100,000

Description of response and explanation of cost calculation

Western Digital is working to develop an estimation and management method.

Comment

Western Digital is working to develop an estimation and management method.

Identifier

Risk 2

Where in the value chain does the risk driver occur?

Direct operations

Risk type & Primary climate-related risk driver

Current regulation

Enhanced emissions-reporting obligations

Primary potential financial impact

Increased direct costs

Company-specific description

Enhanced emissions-reporting obligations causing an increase in labor/fees to support compliance. For example, CDP, client and investor inquiries, etc., require an increasing amount of resource to gather information and respond. Lately Western Digital has had to invest significant additional effort to respond due to a growing lack of consistency in units of measure, reporting periods, and definitions.

Time horizon

Short-term

Likelihood

More likely than not

Magnitude of impact

Medium-low

Are you able to provide a potential financial impact figure?
No, we do not have this figure

Potential financial impact figure (currency)

Potential financial impact figure – minimum (currency)

Potential financial impact figure – maximum (currency)

Explanation of financial impact figure
Financial impact not yet estimated.

Cost of response to risk
100,000

Description of response and explanation of cost calculation
Western Digital is working to develop an estimation and management method.

Comment
Western Digital is working to develop an estimation and management method.

Identifier
Risk 3

Where in the value chain does the risk driver occur?
Direct operations

Risk type & Primary climate-related risk driver
Chronic physical
Changes in precipitation patterns and extreme variability in weather patterns

Primary potential financial impact
Increased capital expenditures

Company-specific description
As a result of climate change, Western Digital is experiencing patterns of more severe extreme weather at all of our global operations. We are factoring this into our risk assessment process.

Time horizon
Medium-term

Likelihood
Likely

Magnitude of impact

Medium-low

Are you able to provide a potential financial impact figure?

No, we do not have this figure

Potential financial impact figure (currency)

Potential financial impact figure – minimum (currency)

Potential financial impact figure – maximum (currency)

Explanation of financial impact figure

Financial impact not yet estimated. While we have insurance for floods and business interruption, the effects would significantly affect our ability to manufacture or sell our products, which would result in a substantial loss of sales and revenue and a substantial harm to our operating results.

Cost of response to risk

Description of response and explanation of cost calculation

To manage these risks, we have insurance and multiple suppliers for parts as well as multiple production facilities in different geographical regions.

Comment

Cost of management is company confidential information.

Identifier

Risk 4

Where in the value chain does the risk driver occur?

Direct operations

Risk type & Primary climate-related risk driver

Acute physical

Increased severity and frequency of extreme weather events such as cyclones and floods

Primary potential financial impact

Decreased revenues due to reduced production capacity

Company-specific description

Adverse weather in affected regions has the potential to cause physical damage to our property and other assets, to directly harm our employees, and to disrupt our owned and contracted operations.

Time horizon

Short-term

Likelihood

About as likely as not

Magnitude of impact

Low

Are you able to provide a potential financial impact figure?

No, we do not have this figure

Potential financial impact figure (currency)

Potential financial impact figure – minimum (currency)

Potential financial impact figure – maximum (currency)

Explanation of financial impact figure

Financial impact not yet estimated. Tropical storms could result in physical damage to our buildings and equipment, leading to repair, and possibly even rebuild costs. They may result in staff not being able to travel to work with potential lost work time. If a data center went down and we did not have contingency arrangements in place, we could suffer a loss of data. If a critical supplier manufacturing facility goes down as a result of a tropical storm, this would likely adversely affect our supplier's production output, which would affect our ability to fulfill customer orders, and potentially lead to revenue losses.

Cost of response to risk

0

Description of response and explanation of cost calculation

To manage these risks, we have insurance and multiple suppliers for parts as well as multiple production facilities in different geographical regions.

Comment

Cost of management is company confidential information.

Identifier

Risk 5

Where in the value chain does the risk driver occur?

Upstream

Risk type & Primary climate-related risk driver

Acute physical

Increased severity and frequency of extreme weather events such as cyclones and floods

Primary potential financial impact

Decreased revenues due to reduced demand for products and services

Company-specific description

Adverse weather in affected regions has the potential to cause physical damage to our property and other assets, to directly harm our employees, and to disrupt our owned and contracted operations, and related production/sales.

Time horizon

Short-term

Likelihood

Unlikely

Magnitude of impact

Medium

Are you able to provide a potential financial impact figure?

No, we do not have this figure

Potential financial impact figure (currency)

Potential financial impact figure – minimum (currency)

Potential financial impact figure – maximum (currency)

Explanation of financial impact figure

Financial impact not yet estimated. In the event that a region that is a local hub for the tech industry is negatively affected by climate change physical impacts, we could experience a downturn in customer orders for our products, as is illustrated by the Thailand situation in 2011.

Cost of response to risk

Description of response and explanation of cost calculation

To manage these risks, we have insurance and multiple suppliers for parts as well as multiple production facilities in different geographical regions.

Comment

Cost of management is company confidential information.

Identifier

Risk 6

Where in the value chain does the risk driver occur?

Direct operations

Risk type & Primary climate-related risk driver

Reputation

Increased stakeholder concern or negative stakeholder feedback

Primary potential financial impact

Decreased revenues due to reduced demand for products and services

Company-specific description

Ever since we established our environmental programs, we have recognized that our customers have expectations for us to invest in reducing our environmental impact. Our manufacturing facilities worldwide conform to an Integrated Management System and are 3rd-party certified within this framework on a multi-site certification to ISO14001:2015, demonstrating to our customers and other stakeholders our commitment to the environment. Many of our customers are large, high profile companies who have well- established environmental programs. They understand that they are only able to reduce their total impact by actively engaging with their suppliers to encourage impact reduction. Some of Western Digital's customers are members of the CDP Supply Chain Consortium and have requested that Western Digital respond to the CDP supply chain module and provide customer specific data. One of our customers also requires that we have a GHG reduction strategy, including a goal and reduction plan for our own operations. If Western Digital were not responsive to such requests, this could negatively impact our relationships with our customers and could lead to lost business should our customers decide to engage with alternative suppliers.

Time horizon

Short-term

Likelihood

Unlikely

Magnitude of impact

Medium

Are you able to provide a potential financial impact figure?

No, we do not have this figure

Potential financial impact figure (currency)

Potential financial impact figure – minimum (currency)

Potential financial impact figure – maximum (currency)

Explanation of financial impact figure

Financial impact not yet estimated. If we were not responsive to our customers' requests regarding our GHG emissions data and reduction plans, we could lose customers and associated revenue.

Cost of response to risk

500,000

Description of response and explanation of cost calculation

Western Digital has centralized a team to comprehensively review and transform its sustainability reporting and governance processes. The company is implementing a consolidated, long-term sustainability strategy, while it continues to focus on delivering sustainable value for customers and other stakeholders. Ensuring that our customers' expectations are met and where possible exceeded has always been a key driver for our environmental programs and we are committed to being both responsive and proactive in our climate change-related dealings with customers.

Comment

Approximate costs during the reporting year were $500,000. We expect to continue to incur similar costs for at least the next 5 years.

Identifier

Risk 7

Where in the value chain does the risk driver occur?

Upstream

Risk type & Primary climate-related risk driver

Chronic physical

Rising mean temperatures

Primary potential financial impact

Increased capital expenditures

Company-specific description

Climate change has the potential to cause natural disasters which may disrupt production and transportation of raw materials.

Time horizon

Long-term

Likelihood

Likely

Magnitude of impact

Medium

Are you able to provide a potential financial impact figure?

No, we do not have this figure

Potential financial impact figure (currency)

Potential financial impact figure – minimum (currency)

Potential financial impact figure – maximum (currency)

Explanation of financial impact figure

Financial impact not yet estimated.

Cost of response to risk

100,000

Description of response and explanation of cost calculation

Western Digital requests suppliers to prepare Business Continuity Plan for the natural disasters and reduce the GHG amount released from the production.

Comment

Western Digital is working to establish business continuity plans with key suppliers to ensure minimal disruption to supply chain.

Identifier

Risk 8

Where in the value chain does the risk driver occur?

Downstream

Risk type & Primary climate-related risk driver

Reputation

Increased stakeholder concern or negative stakeholder feedback

Primary potential financial impact

Decreased revenues due to reduced demand for products and services

Company-specific description

External factors may affect customer and stakeholder perceptions of Western Digital, which may impact the demand for Western Digital products.

Time horizon

Long-term

Likelihood

Unlikely

Magnitude of impact

Medium

Are you able to provide a potential financial impact figure?

No, we do not have this figure

Potential financial impact figure (currency)

Potential financial impact figure – minimum (currency)

Potential financial impact figure – maximum (currency)

Explanation of financial impact figure

Financial impact not yet estimated.

Cost of response to risk

250,000

Description of response and explanation of cost calculation

Western Digital regularly engages with customers and stakeholders to address concerns as they arise.

Comment

Western Digital regularly engages with customers and stakeholders to address concerns as they arise.

Identifier

Risk 9

Where in the value chain does the risk driver occur?

Direct operations

Risk type & Primary climate-related risk driver

Technology

Transitioning to lower emissions technology

Primary potential financial impact

Increased direct costs

Company-specific description

Western Digital's Real Estate Operations (REO) team is tasked with the installation and maintenance of infrastructure equipment. As technology advances, the new equipment is more resource-efficient than existing. The site REO team conducts analyses based on a number of factors, including equipment availability, local technical support, and total cost of ownership.

Time horizon

Likelihood

Virtually certain

Magnitude of impact

Medium-low

Are you able to provide a potential financial impact figure?

No, we do not have this figure

Potential financial impact figure (currency)

Potential financial impact figure – minimum (currency)

Potential financial impact figure – maximum (currency)

Explanation of financial impact figure

Financial impact not yet estimated.

Cost of response to risk

1,000,000

Description of response and explanation of cost calculation

Western Digital sets annual energy reduction targets for sites to meet by implementing energy-efficient technology or processes.

Comment

Site personnel are responsible for meeting the annual energy reduction target by implementing energy-efficient technology or processes.

Identifier

Risk 10

Where in the value chain does the risk driver occur?

Direct operations

Risk type & Primary climate-related risk driver

Chronic physical

Rising mean temperatures

Primary potential financial impact

Increased indirect (operating) costs

Company-specific description

Manufacture of Western Digital products take place in environments controlled for temperature and humidity. Rising temperatures mean increased air conditioning and ventilation costs.

Time horizon

Long-term

Likelihood

Very likely

Magnitude of impact

Medium

Are you able to provide a potential financial impact figure?

No, we do not have this figure

Potential financial impact figure (currency)

Potential financial impact figure – minimum (currency)

Potential financial impact figure – maximum (currency)

Explanation of financial impact figure

Financial impact not yet estimated.

Cost of response to risk

500,000

Description of response and explanation of cost calculation

Western Digital tracks energy costs at all manufacturing locations. Sites with increasing energy costs are prioritized for equipment upgrades to more energy-efficient technology. All sites are required to meet annual energy reduction targets.

Comment

Site personnel are responsible for meeting the annual energy reduction target by implementing energy-efficient technology or processes.

Identifier

Risk 11

Where in the value chain does the risk driver occur?

Direct operations

Risk type & Primary climate-related risk driver

Chronic physical

Rising sea levels

Primary potential financial impact

Increased capital expenditures

Company-specific description

Western Digital constructed a flood wall surrounding our Thailand facility to mitigate local flood impacts.

Time horizon

Medium-term

Likelihood

Virtually certain

Magnitude of impact

High

Are you able to provide a potential financial impact figure?

Yes, a single figure estimate

Potential financial impact figure (currency)

2,000,000

Potential financial impact figure – minimum (currency)

Potential financial impact figure – maximum (currency)

Explanation of financial impact figure

Flood wall was constructed at a cost of around $2 million USD.

Cost of response to risk

100,000

Description of response and explanation of cost calculation

Western Digital conducts risk assessments of site susceptibility to rising sea levels. Facilities in locations sensitive to rising sea levels will require business continuity management to protect the operations.

Comment

Western Digital is working to develop an estimation and management method relevant to the newly integrated company.

C2.4

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

Yes

C2.4a

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

Identifier

Opp1

Where in the value chain does the opportunity occur?

Upstream

Opportunity type

Energy source

Primary climate-related opportunity driver

Participation in carbon market

Primary potential financial impact

Returns on investment in low-emission technology

Company-specific description

Western Digital's commitment to lowering greenhouse gas emissions has a dual effect of cost savings related to increased resource productivity (i.e., energy and water) as well as assisting customers to achieve their greenhouse gas emissions goals. For example, our facilities in China operate under a carbon quota. We are able to sell excess emissions on the market, which is an incentive to reduce greenhouse gas emissions.

Time horizon

Medium-term

Likelihood

Virtually certain

Magnitude of impact

Medium-low

Are you able to provide a potential financial impact figure?

No, we do not have this figure

Potential financial impact figure (currency)

Potential financial impact figure – minimum (currency)

Potential financial impact figure – maximum (currency)

Explanation of financial impact figure

The impact is still at a small scale and requires further analysis in the future.

Cost to realize opportunity

Strategy to realize opportunity and explanation of cost calculation

Western Digital continually evaluates lower emissions technology when equipment and processes are upgraded.

Comment

Cost to realize opportunity is loss of market share if priced too high.

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

Returns on investment in low-emission technology

Company-specific description

Energy costs are projected to rise globally, a situation which is exacerbated in some regions such as California, China, India and the European Union by taxes and regulations intended to reduce fossil fuel use. As customers seek to reduce their operational costs, they are increasingly looking for energy efficient technology solutions. This promotes the market for Western Digital products that use significantly less energy when compared with alternative solutions. Product efficiency standards are anticipated to drive the market for energy efficient technology products. This creates an opportunity for marketing of Western Digital's products that offer energy efficiency advantages over comparable products. For example, under the EU Eco-design Directive, server and other equipment which incorporate Western Digital products may be subject to future regulatory requirements. California has also proposed energy efficiency standards for computers as part of its Appliance Efficiency legislation. Customers who place technology equipment on the market may be required to incorporate higher levels of energy efficiency to their product and this in turn could stimulate demand for products such as our highly efficient Hard Disk Drives.

Time horizon

Long-term

Likelihood

About as likely as not

Magnitude of impact

Medium-low

Are you able to provide a potential financial impact figure?

No, we do not have this figure

Potential financial impact figure (currency)

Potential financial impact figure – minimum (currency)

Potential financial impact figure – maximum (currency)

Explanation of financial impact figure

It is difficult to accurately quantify and effectively communicate the financial implications of this opportunity due to multiple other factors that could accompany a scenario of increasing energy costs. Energy taxes and product efficiency standards driving increased demand for Western Digital's energy efficient products translate into revenue generation opportunities for our company. It may also serve to justify increased R & D investment in the design and development of new, energy-efficient products

Cost to realize opportunity

Strategy to realize opportunity and explanation of cost calculation

Improving energy efficiency is a guiding principle of our product design and development across all product lines. The Western Digital hard disk drives deliver more computing power while using less energy power. Western Digital technology in data centers powers applications over a cloud-based network. It lets multiple users simultaneously share data with ultra-fast streaming display, mitigating the need for high-powered workstations for each user. Western Digital platforms lead the industry for accelerating data analytics, scientific computing, and high-performance computing. The new devices deliver the fastest performance and best energy efficiency for workloads with near-infinite computing needs. Western Digital technology powers many of the top energy-efficient systems on the Green500 supercomputer list. This includes the Tokyo Institute of Technology's Tsubame-KFC, the first super- computer to break the 4 gigaflops per watt barrier. Western Digital HDDs maximizes energy conservation and battery life in notebooks by automatically shutting off the HDD when it is not needed.

Comment

Changes in market share as solutions leverage different mixes in SSD and HDD products.

Identifier

Opp3

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

Returns on investment in low-emission technology

Company-specific description

Western Digital Design and development teams are achieving significant advances in the energy efficiency performance of our storage products with simultaneous dramatic increases in storage capacity and no increase in physical footprint. Western Digital's continuing innovation in design enables significant greenhouse gas emission reductions during the "customer use" phase of our product life cycle since the customer is able to achieve doubling of their storage capacity while cutting energy requirements in half, and with no increase in physical footprint.

Time horizon

Medium-term

Likelihood

Likely

Magnitude of impact

Medium

Are you able to provide a potential financial impact figure?

No, we do not have this figure

Potential financial impact figure (currency)

Potential financial impact figure – minimum (currency)

Potential financial impact figure – maximum (currency)

Explanation of financial impact figure

It is difficult to accurately quantify and effectively communicate the financial implications of this opportunity due to multiple other factors that could accompany a scenario of increasing energy costs. The use of Western Digital HDD technology for climate change research and mitigation applications drives additional revenue streams for Western Digital.

Cost to realize opportunity

Strategy to realize opportunity and explanation of cost calculation

Hiring local talent results in greater local investment in education. Unique partnerships between Western Digital and local educational institutions are designed to train the next generation of engineers and managers who will help lead our development and manufacturing activities in the future. We engage and cooperate with local governments and universities to develop advanced technology curricula. We arrange hands-on training for polytechnic lecturers, donate lab equipment and provide engineers as volunteer teachers at local universities.

Comment

Potential loss of market share if new technology does not meet customer expectations.

Identifier

Opp4

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

Returns on investment in low-emission technology

Company-specific description

Western Digital's commitment to lowering greenhouse gas emissions has a dual effect of cost savings related to increased resource productivity (i.e., energy and water) as well as assisting customers to achieve their greenhouse gas emissions goals. For example many customers have set science-based targets, including Scope 3 targets.

Time horizon

Medium-term

Likelihood

About as likely as not

Magnitude of impact

Medium

Are you able to provide a potential financial impact figure?

No, we do not have this figure

Potential financial impact figure (currency)

Potential financial impact figure – minimum (currency)

Potential financial impact figure – maximum (currency)

Explanation of financial impact figure

It is difficult to accurately quantify and effectively communicate the financial implications of this opportunity due to multiple other factors that could accompany a scenario of increasing energy costs. Financial implications of improving stakeholder relations include i) attracting and retaining customers to maintain and grow our revenue; ii) potential for favorable ratings by investment analysts, with a potential longer term positive impact on our share value; iii) attracting and retaining the best employees, which is critical to creating our innovative products and iv) ensuring a positive relationship with local agencies enabling us to continue to develop our facilities. We are unable to quantify the positive impact to our business due to the intangible nature of the opportunity.

Cost to realize opportunity

500,000

Strategy to realize opportunity and explanation of cost calculation

We believe that proactive communication of our environmental programs will enhance our reputation. We have responded to the CDP Investor survey annually since 2007. Western Digital is preparing to publish and regularly update a global Corporate Responsibility report that details our environmental programs; and to participate in surveys such as those from the Dow Jones Sustainability Index. We post case studies about our energy efficient products on our corporate website and social media channels such as our Facebook, Twitter, LinkedIn and blog (https://datamakespossible.westerndigital.com/). Our efforts have been recognized by third parties. At our Bay Area facilities and headquarters in California, we operate commute programs which provides employees with climate-friendly options for traveling to and from work while addressing a priority issue for the locals. We are also building high levels of energy efficiency into our facilities, with two buildings certified LEED Silver by USGBC. Through our actions, we anticipate that a positive impact on our reputation is likely.

Comment

During the reporting year, we incurred costs associated with employee time and consulting fees, in support of our environmental program. Approximate costs during the reporting year were over $500,000. We expect to continue to incur similar costs for at least the next 5 years.

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

C3.1b

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

Climate-related scenarios and models applied	Details
Other, please specify Internal Methodology	Western Digital conducted a study to identify and mitigate the effects of any future "Black Swan" or other events that may disrupt manufacturing operations in Asia and United States. Steps include a high-level identification of potential external hazards, hazardous situations and/or events that can cause harm to assets at a given facility. This is followed by a more refined study to gather specific data (e.g., geological maps, etc.), identification of extreme weather events, generation of specific data to understand and develop responses to specific events (e.g., flooding, earthquake, etc.), developing probabilities, assessing operational impacts, and preparing a risk register and threat assessment summary. The study focused on events of low (1 in 500 years) and medium (1 in 100 years) probability of occurring, and identified site specific threats. Previous vulnerability assessments showed company operations being most likely to be impacted by low to medium probability events which could happen at any time. These macro inputs are further informed and refined by the more frequent business impact assessments conducted through implementation of Western Digital's detailed business continuity management system process, as previously described. The results of the scenario analysis provided a summary of anticipated risks and impacts to operations. The three greatest risks to Western Digital operations were identified to be floods, earthquakes, and tsunamis. Risk mitigation is strategically prioritized against OpEx and CapEx needs.

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	A significant risk and opportunity is associated with Western Digital's development of new products and services through R&D and innovation. Western Digital constantly works to increase storage capacity and density in its products, resulting in significantly greater storage over time for a given physical footprint. This gives IT managers the potential to reduce the number of drives deployed, consolidate servers and open up valuable rack space while improving resource productivity in energy, water, and associated GHG emissions. Western Digital Design and development teams are also achieving significant advances in the energy efficiency performance of our storage products with simultaneous dramatic increases in storage capacity and no increase in physical footprint. Western Digital's continuing innovation in design enables significant greenhouse gas emission reductions during the "customer use" phase of our product life cycle since the customer is able to achieve doubling of their storage capacity while cutting energy requirements in half, and with no increase in physical footprint.
Supply chain and/or value chain	Yes	We recognize a future competitive advantage by our ability to assess value chain climate risks and opportunities, especially those associated with avoiding reduced revenue from decreased production capacity (e.g., transport difficulties, supply chain interruptions). Relevant risks include changes in precipitation patterns, extreme variability in weather patterns and increased severity of extreme weather events such as cyclones and floods (Increased capital costs (e.g., damage to facilities). We have established business continuity programs for our internal operations and requirements for our suppliers to prepare for extreme weather and natural disaster events that are increasingly common (e.g., earthquakes and floods). We were an early customer for Resilinc's (www.resilinc.com) event notification

		and impact assessment services, which facilitates prompt assessment of any significant interruption of our customer fulfillment; and prompt recovery of impacted operations or transfer to alternative internal and supplier facilities.
Investment in R&D	Yes	Our teams are achieving significant advances in the energy efficiency of our storage products with simultaneous dramatic increases in storage capacity and no increase in physical footprint. Western Digital's continuing innovation in design enables significant greenhouse gas emission reductions during the customer use phase of our product life cycle.
Operations	Yes	We have established ISO certified or compliant business continuity programs and procedures for our internal operations to prepare for extreme weather and natural disaster events that are increasingly more common (e.g., earthquakes and floods) and associated with climate change. We were an early customer for Resilinc's event notification and impact assessment services, which facilitates prompt assessment of any significant interruption and prompt recovery of impacted operations.

C3.1e

(C3.1e) Describe where and how climate-related risks and opportunities have influenced your financial planning.

	Financial planning elements that have been influenced	Description of influence
Row 1	Revenues Direct costs Capital expenditures Acquisitions and divestments Assets Liabilities	We evaluate and address climate-related risks and opportunities in the same manner as we do other significant risks and opportunities affecting our business. Data on potential climate risks and opportunities is regularly presented to the executive leadership team, which uses that data to develop business strategies and allocate resources throughout the organization in a way that avoids or mitigates risks and capitalizes on opportunities. The time horizon for financial planning is up to 5 years. As one example, climate change may increase the risk of flooding in certain geographies, and Western Digital has invested in significant flood mitigation improvements at sites that are particularly susceptible to flooding.

C3.1f

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

C4. Targets and performance

C4.1

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

Absolute target

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

2019

Target coverage

Company-wide

Scope(s) (or Scope 3 category)

Scope 1+2 (location-based)

Base year

2018

Covered emissions in base year (metric tons CO2e)

1,156,553.9

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

100

Target year

2019

Targeted reduction from base year (%)

1.5

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

1,139,205.5915

Covered emissions in reporting year (metric tons CO2e)

968,354.8

% of target achieved [auto-calculated]

1,084.8268002613

Target status in reporting year

Achieved

Is this a science-based target?

No, and we do not anticipate setting one in the next 2 years

Please explain (including target coverage)

Western Digital is promoting energy conservation globally in 2019. In addition, Western Digital used updated International Energy Association (IEA) emission factors, resulting in a significant decrease in Scope 2 emissions. Western Digital historically used GHG Protocol emission factors for international electricity, but due to a change in availability of updated data, Western Digital switched to conversion factors provided by the IEA. Also, there were site closure activities and manufacturing adjustment based on market situation. These are also key driver of the significant decrease of GHG emission.

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

2019

Target coverage

Company-wide

Target type: absolute or intensity

Absolute

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

Energy consumption or efficiency

kWh

Target denominator (intensity targets only)

Base year
2018

Figure or percentage in base year
2,214,713,611.93

Target year
2019

Figure or percentage in target year
2,064,732,293.22

Figure or percentage in reporting year
2,064,732,293.22

% of target achieved [auto-calculated]
100

Target status in reporting year
Achieved

Is this target part of an emissions target?
Yes, Western Digital is setting energy consumption reduction through promoting energy efficiency globally. This energy efficiency improvement target is also leveraged to GHG (Scope1 and 2) reduction target.

Is this target part of an overarching initiative?
No, it's not part of an overarching initiative

Please explain (including target coverage)
Western Digital set annual energy reduction target. Coverage of this target is all manufacturing and Research and Development locations.

C4.3

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

C4.3a

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

	Number of initiatives	Total estimated annual CO2e savings in metric tonnes CO2e (only for rows marked *)
Under investigation	0	0
To be implemented*	4	9,377

Implementation commenced*	0	0
Implemented*	137	67,917
Not to be implemented	0	0

C4.3b

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

Initiative category & Initiative type

Energy efficiency in buildings
Building Energy Management Systems (BEMS)

Estimated annual CO2e savings (metric tonnes CO2e)

0.1

Scope(s)

Scope 2 (location-based)

Voluntary/Mandatory

Voluntary

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

473,069

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

118,500

Payback period

1-3 years

Estimated lifetime of the initiative

11-15 years

Comment

BMS improvement project through AI/IOT concept. Considering the significant investment, this type of initiatives are still in the very initial phase of implementation.

Initiative category & Initiative type

Energy efficiency in buildings
Heating, Ventilation and Air Conditioning (HVAC)

Estimated annual CO2e savings (metric tonnes CO2e)

6,090

Scope(s)

Scope 2 (location-based)

Voluntary/Mandatory

Voluntary

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

1,284,877

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

1,507,503

Payback period

1-3 years

Estimated lifetime of the initiative

11-15 years

Comment

This includes the replacement of existing machines/components of HVAC system with new/more energy efficient ones.

Initiative category & Initiative type

Energy efficiency in buildings
Lighting

Estimated annual CO2e savings (metric tonnes CO2e)

726

Scope(s)

Scope 2 (location-based)

Voluntary/Mandatory

Voluntary

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

105,310

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

448,004

Payback period

1-3 years

Estimated lifetime of the initiative

11-15 years

Comment

Majority of projects is replacing old types of lighting system (T8 tube) with LED. Some facility is promoting the control of LED with programming technology to promote further energy saving and to provide better work environment.

Initiative category & Initiative type

Energy efficiency in buildings
Maintenance program

Estimated annual CO2e savings (metric tonnes CO2e)

2,509

Scope(s)

Scope 2 (location-based)

Voluntary/Mandatory

Voluntary

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

457,001

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

486,500

Payback period

1-3 years

Estimated lifetime of the initiative

11-15 years

Comment

Several manufacturing facilities had the close of operation of idling of operation for facility maintenance. Saving attributed to these activities are keyed here.

Initiative category & Initiative type

Energy efficiency in buildings
Motors and drives

Estimated annual CO2e savings (metric tonnes CO2e)

108

Scope(s)

Scope 2 (location-based)

Voluntary/Mandatory

Voluntary

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

41,113

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

50,000

Payback period

1-3 years

Estimated lifetime of the initiative

11-15 years

Comment

Some facilities installed variable frequency drive and motor to achieve energy efficiency.

Initiative category & Initiative type

Energy efficiency in buildings

Other, please specify

Building closure

Estimated annual CO2e savings (metric tonnes CO2e)

1,397

Scope(s)

Scope 2 (location-based)

Voluntary/Mandatory

Voluntary

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

523,573

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

11,438

Payback period

<1 year

Estimated lifetime of the initiative

>30 years

Comment

There was some closure of buildings in calendar year 2019 for business reasons.

Initiative category & Initiative type

Energy efficiency in production processes

Cooling technology

Estimated annual CO2e savings (metric tonnes CO2e)

50

Scope(s)

Scope 2 (location-based)

Voluntary/Mandatory

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

18,485

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

695,018

Payback period

1-3 years

Estimated lifetime of the initiative

11-15 years

Comment

This includes the replacement of air conditioning system in manufacturing areas.

Initiative category & Initiative type

Energy efficiency in production processes
Machine/equipment replacement

Estimated annual CO2e savings (metric tonnes CO2e)

570

Scope(s)

Scope 2 (location-based)

Voluntary/Mandatory

Voluntary

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

128,209

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

899,250

Payback period

1-3 years

Estimated lifetime of the initiative

11-15 years

Comment

This includes the replacement of FFU and other machines related to clean room operation.

Initiative category & Initiative type

Energy efficiency in production processes
Process optimization

Estimated annual CO2e savings (metric tonnes CO2e)

56,008

Scope(s)

Scope 2 (location-based)

Voluntary/Mandatory

Voluntary

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

3,296,463

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

534,197

Payback period

1-3 years

Estimated lifetime of the initiative

11-15 years

Comment

Facility operation team reviewed existing facilities and its operation, and adjusted its process according to the change of productions and other factors related to the change of energy demand.

Initiative category & Initiative type

Low-carbon energy consumption
Solar PV

Estimated annual CO2e savings (metric tonnes CO2e)

459

Scope(s)

Scope 2 (location-based)

Voluntary/Mandatory

Voluntary

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

60,638

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

470,882

Payback period

4-10 years

Estimated lifetime of the initiative

16-20 years

Comment

On site solar power generation is providing energy to our facility operation, and reducing the amount of purchased electricity consumption.

C4.3c

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

Method	Comment
Dedicated budget for energy efficiency	In the regular CRB (Capital Review Board) process, the effect of improving energy efficiency is carefully evaluated, and projects are funded as appropriate to achieve energy efficiency and financial goals. Also, Western Digital's energy/resource management program office annually reviews global performance of efficiency investments to evaluate whether the funding levels are appropriate.
Dedicated budget for low-carbon product R&D	Western Digital continues to drive innovation with our HelioSeal® platform of high-capacity data center drives. With one of the lowest power profiles in the industry, our products help data center architects meet eco-environmental goals and requirements by delivering more capacity (storage density), more efficiency (watts/TB), more reliability and more value ($/TB).
Financial optimization calculations	The directive from our executive team is clear – we have the freedom to execute the programs we believe will be most impactful, but should demonstrate a clear ROI.
Employee engagement	Our ISO14001 management system assists Western Digital in establishing systems and programs that reduce energy, water usage and waste, as well as encouraging employees to become active participants in protecting our environment.
Internal incentives/recognition programs	The Western Digital energy/resource management program office formally recognizes and rewards significant accomplishments in facilities energy and CO2 reduction.

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, 2018

Base year end

December 31, 2018

Base year emissions (metric tons CO2e)

46,269.28

Comment

Scope 2 (location-based)

Base year start

January 1, 2018

Base year end

December 31, 2018

Base year emissions (metric tons CO2e)

1,110,284.6

Comment

Scope 2 (market-based)

Base year start

January 1, 2018

Base year end

December 31, 2018

Base year emissions (metric tons CO2e)

1,107,529.26

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)
The Greenhouse Gas Protocol: Public Sector Standard

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)

50,560.1

Start date

January 1, 2019

End date

December 31, 2019

Comment

Past year 1

Gross global Scope 1 emissions (metric tons CO2e)

46,269.28

Start date

January 1, 2018

End date

December 31, 2018

Comment

Past year 2

Gross global Scope 1 emissions (metric tons CO2e)

50,190.29

Start date

January 1, 2017

End date

December 31, 2017

Comment

Past year 3

Gross global Scope 1 emissions (metric tons CO2e)

44,669

Start date

January 1, 2016

End date

December 31, 2016

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

970,431.2

Scope 2, market-based (if applicable)
1,010,537.1

Start date
January 1, 2019

End date
December 31, 2019

Comment

Past year 1

Scope 2, location-based
1,110,284.6

Scope 2, market-based (if applicable)
1,107,529.26

Start date
January 1, 2018

End date
December 31, 2018

Comment

Past year 2

Scope 2, location-based
1,080,603.2

Scope 2, market-based (if applicable)
1,068,073.4

Start date
January 1, 2017

End date
December 31, 2017

Comment

Past year 3

Scope 2, location-based
1,126,512

Scope 2, market-based (if applicable)

1,103,251

Start date

January 1, 2016

End date

December 31, 2016

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, not yet calculated

Please explain

Western Digital is currently conducting an assessment of Scope 3 emissions, including purchased goods and services.

Capital goods

Evaluation status

Relevant, not yet calculated

Please explain

Western Digital is currently conducting an assessment of Scope 3 emissions, including capital goods.

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

Evaluation status

Relevant, not yet calculated

Please explain

Western Digital is currently conducting an assessment of Scope 3 emissions, including fuel and energy related activities.

Upstream transportation and distribution

Evaluation status

Relevant, not yet calculated

Please explain

Western Digital is currently conducting an assessment of Scope 3 emissions, including upstream transportation and distribution.

Waste generated in operations

Evaluation status

Relevant, not yet calculated

Please explain

Western Digital is currently conducting an assessment of Scope 3 emissions, including waste generated in operations.

Business travel

Evaluation status

Relevant, calculated

Metric tonnes CO2e

35,325

Emissions calculation methodology

Western Digital obtained the distance of traveled distance from our travel agency. Travel distance is limited to air flight for business travel. Then, Western Digital multiplied that distance with emission factors provided by DEFRA to calculate GHG emission.

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

100

Please explain

Our travel agency covers all air flight travel data related to business travel, because all employees are required to book flight via this travel agency.

Employee commuting

Evaluation status

Relevant, not yet calculated

Please explain

Western Digital is currently conducting an assessment of Scope 3 emissions, including employee commuting.

Upstream leased assets

Evaluation status

Relevant, not yet calculated

Please explain

Western Digital is currently conducting an assessment of Scope 3 emissions, including upstream leased assets.

Downstream transportation and distribution

Evaluation status

Relevant, not yet calculated

Please explain

Western Digital is currently conducting an assessment of Scope 3 emissions, including downstream transportation and distribution.

Processing of sold products

Evaluation status

Relevant, not yet calculated

Please explain

Western Digital is currently conducting an assessment of Scope 3 emissions, including processing of sold products.

Use of sold products

Evaluation status

Relevant, not yet calculated

Please explain

Western Digital is currently conducting an assessment of Scope 3 emissions, including use of sold products.

End of life treatment of sold products

Evaluation status

Relevant, not yet calculated

Please explain

Western Digital is currently conducting an assessment of Scope 3 emissions, including end of life treatment of sold products.

Downstream leased assets

Evaluation status

Not relevant, explanation provided

Please explain

WDC does not own any assets leased to other entities (downstream leased assets).

Franchises

Evaluation status

Not relevant, explanation provided

Please explain

WDC does not operate any franchises.

Investments

Evaluation status

Relevant, not yet calculated

Please explain

Western Digital is currently conducting an assessment of Scope 3 emissions, including investments.

Other (upstream)

Evaluation status

Not evaluated

Please explain

Other (downstream)

Evaluation status

Not evaluated

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

0.00062

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

968,354.8

Metric denominator

unit total revenue

Metric denominator: Unit total

15,582,000,000

Scope 2 figure used

Location-based

% change from previous year

5.8

Direction of change

Decreased

Reason for change

Scope2 emission number significantly decreased due to the change of emission factors (see comment for C4.1a) . Also, revenue also increased from previous year.

C7. Emissions breakdowns

C7.1

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

Yes

C7.1a

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

Greenhouse gas	Scope 1 emissions (metric tons of CO2e)	GWP Reference
CO2	3,510.11	IPCC Fifth Assessment Report (AR5 – 100 year)
SF6	6,770.91	IPCC Fifth Assessment Report (AR5 – 100 year)
NF3	2.56	IPCC Fifth Assessment Report (AR5 – 100 year)
Other, please specify CF4	659.93	IPCC Fifth Assessment Report (AR5 – 100 year)
Other, please specify	0.55	IPCC Fifth Assessment Report (AR5 – 100 year)

C4F8		
Other, please specify HFE7100	6,221.71	IPCC Fifth Assessment Report (AR5 – 100 year)
Other, please specify HFE7200	12.83	IPCC Fifth Assessment Report (AR5 – 100 year)
Other, please specify HCFC-22	403.46	IPCC Fifth Assessment Report (AR5 – 100 year)
Other, please specify HCFC-123	14.22	IPCC Fifth Assessment Report (AR5 – 100 year)
Other, please specify R404A	17.74	IPCC Fifth Assessment Report (AR5 – 100 year)
Other, please specify R407C	43.1	IPCC Fifth Assessment Report (AR5 – 100 year)
Other, please specify R508B	29.02	IPCC Fifth Assessment Report (AR5 – 100 year)
HFCs	52.45	IPCC Fifth Assessment Report (AR5 – 100 year)
Other, please specify CO2 from Gas and Oil consumption	32,331.3	Other, please specify World Resources Institute (2008). GHG Protocol tool for stationary combustion. Version 4.; Energy Conversion Factors are from the GHG Protocol tool, Emission-Factors-from-Cross-Sector-Tools. August 2012.

C7.2

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

Country/Region	Scope 1 emissions (metric tons CO2e)
India	536.16
Israel	2.8
Japan	1,722.5
Malaysia	886.47
Philippines	953.16
Thailand	12,352.69
United States of America	33,144
China	822.2

C7.3

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

By business division

C7.3a

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

Business division	Scope 1 emissions (metric ton CO2e)
Hard Disk Drive (HDD) manufacturing and development	48,724.5
Solid State Drive (SSD) manufacturing and development	1,695.5

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)
India	7,514.8	7,514.8	10,400.7	0
Israel	9,247.9	9,247.9	16,601.29	0
Japan	13,911.7	12,259.6	26,535.9	0
Malaysia	275,232.9	210,333.3	4,218,314,296	1,358.94
Philippines	62,623.9	62,623.9	93,217.54	0
Thailand	331,059.7	383,525.2	693,862.63	0
United States of America	70,869.2	74,835.7	313,389.27	446,980.56
China	197,894.7	249,001.5	315,972.42	0
Singapore	0	0	0	0

C7.6

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

By business division

C7.6a

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

Business division	Scope 2, location-based (metric tons CO2e)	Scope 2, market-based (metric tons CO2e)
Hard Disk Drive (HDD)	740,826.1	870,315.71
Solid State Drive (SSD)	227,528.67	239,968.89

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	886.7	Decreased	0.7	One of Asia mfg locations expanded renewable energy generation on site. Generated electricity is directly sourced to site operation. Thus, this contributed to the reduction of Scope2 emission.
Other emissions reduction activities	123,817.2	Decreased	10.7	Western Digital implements energy conservation measures every year globally. Through energy(mainly electricity) consumption reduction, there is significant CO2 reduction.
Divestment	12,194.1	Decreased	1.1	One facility was closed for business reasons, and the property was sold.
Acquisitions	0	No change	0	There was no increase/decrease of GHG emission related to acquisitions.
Mergers	0	No change	0	There was no increase/decrease of GHG emission related to mergers.
Change in output	0	No change	0	There was several changes of production volume, but it is difficult to identify its impact to GHG data.

Change in methodology	0	No change	0	There was no increase/decrease of GHG emission related to change in methodology.
Change in boundary	0	No change	0	There was no change in boundary.
Change in physical operating conditions	0	No change	0	There was no increase/decrease of GHG emission related to change in physical operating conditions
Unidentified	0	No change	0	Not applicable
Other	0	No change	0	Not applicable

C7.9b

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

Location-based

C8. Energy

C8.1

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

More than 35% but less than or equal to 40%

C8.2

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

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

Generation of electricity, heat, steam, or cooling	Yes

C8.2a

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

	Heating value	MWh from renewable sources	MWh from non-renewable sources	Total (renewable and non-renewable) MWh
Consumption of fuel (excluding feedstock)	Unable to confirm heating value	0	173,701.2	173,701.2
Consumption of purchased or acquired electricity		446,980.56	1,444,830.6	1,891,811.16
Consumption of self-generated non-fuel renewable energy		1,358.94		1,358.94
Total energy consumption		448,339.5	1,618,531.8	2,066,871.3

C8.2b

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

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

C8.2c

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

Fuels (excluding feedstocks)

Diesel

Heating value

Unable to confirm heating value

Total fuel MWh consumed by the organization

4,472.43

Emission factor

167.6362

Unit

lb CO2e per 1000 cubic ft3

Emissions factor source

World Resources Institute (2008). GHG Protocol tool for stationary combustion. Version 4.; Energy Conversion Factors are from the GHG Protocol tool, Emission-Factors-from-Cross-Sector-Tools. August 2012.

Comment

Fuels (excluding feedstocks)

Kerosene

Heating value

Unable to confirm heating value

Total fuel MWh consumed by the organization

6,765.67

Emission factor

157.81044

Unit

lb CO2e per 1000 cubic ft3

Emissions factor source

World Resources Institute (2008). GHG Protocol tool for stationary combustion. Version 4.; Energy Conversion Factors are from the GHG Protocol tool, Emission-Factors-from-Cross-Sector-Tools. August 2012.

Comment

Fuels (excluding feedstocks)

Natural Gas

Heating value

Unable to confirm heating value

Total fuel MWh consumed by the organization

155,226.71

Emission factor

401

Unit

lb CO2e per MWh

Emissions factor source

World Resources Institute (2008). GHG Protocol tool for stationary combustion. Version 4.; Energy Conversion Factors are from the GHG Protocol tool, Emission-Factors-from-Cross-Sector-Tools. August 2012.

Comment

Fuels (excluding feedstocks)

Liquefied Natural Gas (LNG)

Heating value

Unable to confirm heating value

Total fuel MWh consumed by the organization

341.92

Emission factor

0.11778

Unit

lb CO2e per 1000 cubic ft3

Emissions factor source

World Resources Institute (2008). GHG Protocol tool for stationary combustion. Version 4.; Energy Conversion Factors are from the GHG Protocol tool, Emission-Factors-from-Cross-Sector-Tools. August 2012.

Comment

Fuels (excluding feedstocks)

Liquefied Petroleum Gas (LPG)

Heating value

Unable to confirm heating value

Total fuel MWh consumed by the organization

4,474.56

Emission factor

451.1

Unit

lb CO2e per MWh

Emissions factor source

World Resources Institute (2008). GHG Protocol tool for stationary combustion. Version 4.; Energy Conversion Factors are from the GHG Protocol tool, Emission-Factors-from-Cross-Sector-Tools. August 2012.

Comment

Fuels (excluding feedstocks)

Other, please specify

Gasoline

Heating value

Unable to confirm heating value

Total fuel MWh consumed by the organization

264.99

Emission factor

167.6362

Unit

lb CO2e per 1000 cubic ft3

Emissions factor source

World Resources Institute (2008). GHG Protocol tool for stationary combustion. Version 4.; Energy Conversion Factors are from the GHG Protocol tool, Emission-Factors-from-Cross-Sector-Tools. August 2012.

Comment

Fuels (excluding feedstocks)

Petrol

Heating value

Unable to confirm heating value

Total fuel MWh consumed by the organization

15.84

Emission factor

157.81044

Unit

lb CO2e per 1000 cubic ft3

Emissions factor source

World Resources Institute (2008). GHG Protocol tool for stationary combustion. Version 4.; Energy Conversion Factors are from the GHG Protocol tool, Emission-Factors-from-Cross-Sector-Tools. August 2012.

Comment

C8.2d

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

	Total Gross generation (MWh)	Generation that is consumed by the organization (MWh)	Gross generation from renewable sources (MWh)	Generation from renewable sources that is consumed by the organization (MWh)
Electricity	1,358.94	1,358.94	1,358.94	1,358.94
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

Other, please specify

On site solar power generation with facility owned by Western Digital

Low-carbon technology type

Solar

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

Malaysia

MWh consumed accounted for at a zero emission factor

1,358.94

Comment

The generated power is directly supplied to facility and used for site operation.

Sourcing method

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

Low-carbon technology type

Other, please specify

Mix of solar, hydro and wind

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

United States of America

MWh consumed accounted for at a zero emission factor

446,980.56

Comment

Facilities purchased electricity from local utility and they use renewable source to produce electricity.

C9. Additional metrics

C9.1

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

Description

Energy usage

Metric value

6,815

Metric numerator

Trillion Joules

Metric denominator (intensity metric only)

% change from previous year

7

Direction of change

Decreased

Please explain

We reduced our overall energy consumption, significantly exceeding our internal target.

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

Verification statement(2020June29).pdf

Page/ section reference

3 pages of verification statement is attached.

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

Verification statement(2020June29).pdf

Page/ section reference

3 pages of statement report is attached.

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

verification-cy2019.pdf

Page/ section reference

3 pages of statement report is attached.

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: 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

verification-cy2019.pdf

Page/section reference

3 pages of verification report is attached.

Relevant standard

ISO14064-3

Proportion of reported emissions verified (%)

100

C10.2

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

Yes

C10.2a

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

Disclosure module verification relates to	Data verified	Verification standard	Please explain
C8. Energy	Energy consumption	ISO14064-3	Western Digital started external verification of energy consumption. The process of verification is the same with that of GHG emissions.

C11. Carbon pricing

C11.1

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

Yes

C11.1a

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

Japan carbon tax

Shanghai pilot ETS

Shenzhen pilot ETS

C11.1b

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

Shanghai pilot ETS

% of Scope 1 emissions covered by the ETS

100

% of Scope 2 emissions covered by the ETS

100

Period start date

January 1, 2019

Period end date

December 31, 2019

Allowances allocated

164,998

Allowances purchased

0

Verified Scope 1 emissions in metric tons CO2e

739.2

Verified Scope 2 emissions in metric tons CO2e

145,701.6

Details of ownership

Facilities we own and operate

Comment

The allowance is calculated by the WDC factory and will be finalized after carbon emission audit by the government. The allowance data was calculated using WRI emission factors while the verified emissions inventory for Scopes 1 and 2 were calculated using IEA emission factors.

Shenzhen pilot ETS

% of Scope 1 emissions covered by the ETS

0.12

% of Scope 2 emissions covered by the ETS

99.88

Period start date

January 1, 2019

Period end date

December 31, 2019

Allowances allocated

98,720

Allowances purchased

5,484

Verified Scope 1 emissions in metric tons CO2e

83

Verified Scope 2 emissions in metric tons CO2e

68,181.2

Details of ownership

Facilities we own and operate

Comment

The allowance data was calculated using WRI emission factors while the verified emissions inventory for Scopes 1 and 2 were calculated using IEA emission factors.

C11.1c

(C11.1c) Complete the following table for each of the tax systems you are regulated by.

Japan carbon tax

Period start date

January 1, 2019

Period end date

December 31, 2019

% of total Scope 1 emissions covered by tax

100

Total cost of tax paid

18,400

Comment

C11.1d

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

Our compliance approach for the carbon tax is relatively simple. As part of our integrated management system (IMS), we measure and track our fossil fuel usage at our Japanese facilities, QC and manage the data, and carefully meet the regulatory obligations by reporting the emissions and paying the required taxes. Considering that our energy use in Japan is a relatively small fraction of the WDC total, our focus is on reduction of our worldwide footprint versus any specific initiatives to lessen this financial obligation.

Our compliance approach for the emissions trading schemes is similar. As part of our IMS, we measure and track our annual fuel and energy usage at our Chinese facilities, QC and manage the data, and calculate the associated GHG emissions. These emissions are then 3rd party verified and then reported through the online reporting system. Each year we must surrender

an amount of allowances that correspond to the previous year verified emissions. The emission trading schemes are regulatory requirements with non-compliance penalties.

As an example, For CY 2019, WDC's Shenzhen site CY2018 invited a certified third-part to audit and qualify the authenticity of the prior year's carbon emission data that WDC had uploaded into the government's GHG report system. Based on the audit and qualifying report, the government released the CY2018 carbon emission quota and actual generated a response back to the site in May 2019. The government required WDC to comply before June 30, 2019. The report and request reflected a 25,463 tons gap between the actual emissions and government-calculated quota, therefore WDC purchased the necessary credits from the Shenzhen Carbon Emission Spot Trading System with the help of contractor. Then, WDC fulfilled the carbon emission agreement through the carbon emission equities system on time.

C11.2

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

No

C11.3

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

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

C12. Engagement

C12.1

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

Yes, our suppliers

Yes, our customers

C12.1a

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

Type of engagement

Engagement & incentivization (changing supplier behavior)

Details of engagement

Run an engagement campaign to educate suppliers about climate change

% of suppliers by number

41.3

% total procurement spend (direct and indirect)

76

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

Rationale for the coverage of your engagement

Western Digital selected this group of suppliers based on several factors: 90% of total spend, single/sole source, strategic, and logistics suppliers which use the high energy amount. The top 90 % spend, single/sole source, strategic suppliers are the critical and key components suppliers who manufacture the high- volume components and use the highest amount of energy for part manufacturing which generate the huge amount of CO2eq. Western Digital globally use the logistics suppliers to transport the product and components worldwide which also generate the huge amount of CO2eq.

Impact of engagement, including measures of success

As Western Digital signed the CDP contract with CDP to cover the Western Digital's suppliers in the CDP program (Climate Change and Water Security). CDP training was provided to suppliers on May 28, 2020 by CDP. Total 48 unique suppliers (new to CDP); 87 participants joined the training reflecting the supplier engagement. Weekly status report was provided in the CDP system to keep track on the CDP progress of suppliers.

The response rate to Western Digital's outreach to our suppliers has been strong. Several suppliers started to collect the data of resource usage in the factory (electricity, water, fuel consumption, LPG, etc..) For one of our locations we are nearly at 90% acknowledgement rate. Going forward we anticipate measuring percent CO2e reduction as a measure of effective impact. Ultimately the impact of our engagement will be reduced carbon emissions at our supplier sites.

Comment

Type of engagement

Innovation & collaboration (changing markets)

Details of engagement

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

% of suppliers by number

9.6

% total procurement spend (direct and indirect)

76

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

Rationale for the coverage of your engagement

Western Digital selected this group of suppliers based on several factors: 90% of total spend, single/sole source, strategic, and Logistics

Impact of engagement, including measures of success

The response rate to Western Digital's outreach to our suppliers has been strong compared to the industry norm measured by CDP. Going forward we anticipate measuring percent CO2e reduction as a measure of effective impact. Ultimately the impact of our engagement will be reduced carbon emissions at our supplier sites.

Comment

C12.1b

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

Type of engagement

Collaboration & innovation

Details of engagement

Other, please specify

Collaboration with customers on climate change-related initiatives, including reductions in energy usage and emissions.

% of customers by number

12

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

20.5

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

Western Digital has established a streamlined, centrally-managed process for our customers to engage with us on any corporate social and environmental responsibility (CSER) topics, including climate change, and discuss their respective priorities and data needs. The rationale for engaging with customers is to provide customer satisfaction. Climate engagement is primarily with clients requesting information via the CDP Supplier Module, through RBA's on-line reporting platform, as well direct client questionnaires to WDC. This is approximately 12% of total clients accounting for approximately more than one fifth (>20%) of total sales based on storage capacity (petabytes) sold in 2019. Western Digital also shares climate change performance and strategy progress with customers by publishing annually our corporate sustainability

report on our website (https://www.westerndigital.com/company/corporate-sustainability).

Impact of engagement, including measures of success

Western Digital's transparency and willingness to collaborate on sustainability initiatives has improved our relationships with customers, and is increasingly being recognized in customer feedback during quarterly Quality Business Reviews. Our measure of success is the number of positive engagements we have with clients on Western Digital's climate and sustainability initiatives.

C12.3

(C12.3) Do you engage in activities that could either directly or indirectly influence public policy on climate-related issues through any of the following?

Trade associations

C12.3b

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

No

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?

Western Digital participates in the Responsible Business Alliance (RBA) and may provide input on relevant climate change policies. As stated on Western Digital's website, Western Digital seeks to affect government action only on issues and areas that directly impact our business. Potential support of any climate change-related policy initiative would need to be presented to the appropriate senior executives, legal and government affairs staff for discussion.
Western Digital has centralized a team to comprehensively review and transform its sustainability reporting and governance processes. The company is implementing a consolidated, long-term sustainability strategy, while it continues to focus on delivering immediate sustainable value for customers and other stakeholders. Decisions on matters such as these will take into consideration degree of alignment between the proposed initiative and Western Digital's overall sustainability and climate change strategies.

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

Complete

Attach the document

western-digital-2020-sustainability-report.pdf

western-digital-2020-esg-data.pdf

Page/Section reference

Sustainability Report: p12-25

ESG Data Download: p1-3

Content elements

Governance

Strategy

Risks & opportunities

Emissions figures

Emission targets

Other metrics

Comment

C15. Signoff

C-FI

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

C15.1

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

	Job title	Corresponding job category
Row 1	Senior Director, Global Environmental, Health, Safety & Security	Environmental, health and safety manager