

C0. Introduction

C0.1

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

We at Epson have always exercised creativity and challenged ourselves to deliver products and services that exceed the expectations of our customers around the world by drawing on the efficient, compact, and precision technologies we have developed since our company was founded in 1942.

To continuously create new value that exceeds customer expectations and to deliver it worldwide, we will create new markets by collaborating with business partners and embracing open innovation. We will work with others who share our aspirations of using Epson's technologies to create new, environmentally conscious products and services and rapidly meet the needs of even more customers. And, we will use our global network to deliver valuable services to markets and customers around the world.

C0.2

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

	Start date	End date	Indicate if you are providing emissions data for past reporting years	Select the number of past reporting years you will be providing emissions data for
Reporting year	April 1 2020	March 31 2021	No	<Not Applicable>

C0.3

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

- Australia
- Brazil
- China
- China, Hong Kong Special Administrative Region
- France
- Germany
- Indonesia
- Italy
- Japan
- Malaysia
- Netherlands
- Philippines
- Singapore
- Spain
- Taiwan, Greater China
- Thailand
- United Kingdom of Great Britain and Northern Ireland
- United States of America

C0.4

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

JPY

C0.5

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

Financial control

C1. Governance

C1.1

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

Yes

C1.1a

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

Position of individual(s)	Please explain
Chief Executive Officer (CEO)	All final decisions on environmental management, including climate change, are made and enforced by the Board of Directors, which is chaired by the Chairman. The Board of Directors regularly manages specific information on climate-related issues, and based on that information, maintains a process for confirming what the company should do at lower levels meetings. Environmental activities that include climate change, are a Group-wide activity, and therefore fall under the responsibility and authority of the Group's Chief Executive Officer (President). In FY2020, the Board of Directors made revisions to Environmental Vision 2050 and made decisions on Epson 25 Renewed. The targets to be achieved in Environmental Vision 2050 include becoming carbon negative by 2050. The final decision of revisions to Environmental Vision 2050 and Epson 25 Renewed was made by the President (CEO).

C1.1b

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

Frequency with which climate-related issues are a scheduled agenda item	Governance mechanisms into which climate-related issues are integrated	Scope of board-level oversight	Please explain
Scheduled – some meetings	Reviewing and guiding strategy Reviewing and guiding major plans of action Reviewing and guiding risk management policies Reviewing and guiding annual budgets Reviewing and guiding business plans Setting performance objectives Monitoring implementation and performance of objectives Overseeing major capital expenditures, acquisitions and divestitures Monitoring and overseeing progress against goals and targets for addressing climate-related issues	<Not Applicable>	The Board of Directors makes decisions on basic business policies, important business affairs, and other matters that the Board of Directors is responsible for deciding as provided for in internal regulations. Business affairs that the Board of Directors is not responsible for deciding are delegated to executive management, and the Board monitors these. 1. Matters to be deliberated by the Board of Directors: limited to motions of the highest importance (e.g., governance, capital policy, compliance, risk management, deliberations on megatrends and mid- to long-term strategies). Environmental activities, including climate change and water risk, are considered as such highly important issues, and the executive officer in charge of the environment regularly reports the state of SBT achievement and other matters to the Board of Directors. 2. Management meeting bodies have been established for executing operations. Among them is the Corporate Strategy Council, which usually meets about once a week to allow Directors, Executive Officers, and Special Audit & Supervisory Officers to exhaustively discuss important business themes that affect the entire Epson Group and matters brought up before the Board of Directors. Environmental initiatives, including climate change and water risk, are positioned as an important business theme, and the executive officer in charge of the environment regularly reports to the Corporate Strategy Council. The Council discusses reviews to corporate strategies for the environmental initiatives, and revisions to budgets and business plans in line with such reviews, and then submits the result of their discussions to the Board of Directors.

C1.2

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

Name of the position(s) and/or committee(s)	Reporting line	Responsibility	Coverage of responsibility	Frequency of reporting to the board on climate-related issues
Chief Executive Officer (CEO)	<Not Applicable>	Both assessing and managing climate-related risks and opportunities	<Not Applicable>	More frequently than quarterly

C1.2a

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

CEO: The Corporate Strategy Council, chaired by the CEO meets on a weekly basis to deliberate important business affairs as an advisory body to the CEO. The Council, as noted in our response to C1.1b, was established to allow Directors, Executive Officers, and Special Audit & Supervisory Officers to exhaustively discuss important business themes that affect the entire Epson Group and matters brought up before the Board of Directors.

Environmental initiatives, including climate change and water risk, are positioned as an important business theme, and the executive officer in charge of the environment regularly reports to the Corporate Strategy Council. The Council discusses reviews to corporate strategies for the environmental initiatives, and revisions to budgets and business plans in line with such reviews, and then submits the result of their discussions to the Board of Directors.

At the FY2020 Corporate Strategy Council, the following related topics were proposed by the officer in charge, and were discussed and deliberated:

- Development: promotion of environmental technology development as a key topic and establishment of Pararesin Japan Consortium
- Finance: issuing of green bonds, TCFD information disclosure, Mid-Range Business Plan reviews (selected “environment”, “DX” and “co-creation” as key topics)
- CSR & CSV: expansion of scope of RBA audits, substantiation of reduction measures to achieve our SBT, revisions to Environmental Vision 2050, plan to achieve 100% renewable electricity

The President (CEO) is responsible for the final decision on matters related to our environmental management and environmental activities, including climate change.

C1.3

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

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

C1.3a

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

Entitled to incentive	Type of incentive	Activity incentivized	Comment
Chief Executive Officer (CEO)	Monetary reward	Emissions reduction target	ESG management (environment assessment, CSR survey ranking) as a qualitative evaluation based on the progress of strategies toward achieving the operating performance targets of the Epson 25 Renewed.

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	10	
Medium-term	11	50	
Long-term	51		

C2.1b

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

Definition

We have established three judgment levels, high, medium and low, for determining the significance of the substantive financial or strategic impact on our business.

Specifically, we index the definition of a significant financial or strategic impact according to the level of impact on sales revenue.

High: 10 billion yen or more per year

Medium: 1-10 billion yen per year

Low: Less than 1 billion yen per year

Explanation of Definition

Our revenue for FY2020 was 995.9 billion yen. Of our businesses, our inkjet-related business, which has the closest relationship to climate change risks and opportunities, produced sales revenue of 707.7 billion yen.

In terms of our thinking on significant impact, we consider it to be significant if any impact is found and results in a change in sales revenue of approximately 1.5%.

Under our overall company-wide risk management system, we have traditionally responded when discovering an approximately 1.5% impact on sales, as this is a level that significantly affects the operation of each department, the basic organization for business execution, and we believe that this rule of thumb also applies to climate-related issues.

Sales revenue in our inkjet-related business is around 700 billion yen each year. 1.5% of that amount is roughly 10 billion yen and we use this as our basis for determining significant impact.

As there is a stage prior to a major impact, it is vital that we detect and respond to any impact while it is still small to ensure that the subsequent impact is manageable. We consider one 10th of the aforementioned criteria to be effective for impact detection and we have set 1 billion yen (one 10th of 10 billion yen) as the judgment criteria threshold for the next stage.

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

- Risk Management System The Management Control Division oversees comprehensive risks, including climate-related issues. The Management Control Division is also in charge of the executive secretariats for the Corporate Strategy Council and the Board of Directors. The Corporate Strategy Council is an advisory body to the CEO, chaired by the CEO, which deliberates important management topics pertaining to the entire Epson Group and matters for resolution by the Board of Directors. We recognize the need to identify and analyse climate-related risks in detail and specifically and to consider countermeasures. Under the supervision and direction of the Management Control Division, the following divisions, which have specialized functions, are responsible for risk management practices from the two perspectives of the target value chain and the risk management time axis (short-term, medium-term and long-term): Corporate Strategy Dep., CSV/CSR Dep., Corporate Planning Dep., Production Planning Dep., and Environmental Planning Dep. - Risk management process Explanation of specific risk management process. 1) Identify short, medium, and long-term risks and social demands, 2) evaluate the importance of the identified risks and social demands, 3) formulate control plans for important risks and social demands, 4) discuss plans jointly with relevant Dep.s and business units, 5) submit the control plans to the Corporate Strategy Council and discuss them at a Council meeting, 6) report risk assessments and control plans to the Board of Directors, 7) Board of Directors provides oversight, 8) monitor the effectiveness of control plans and report to the Corporate Strategy Council and the Board of Directors every six months, 9) assess significant risks every six months and review if necessary. - Opportunity management process The CSV/CSR Dep. and the Environmental Planning Dep. takes on the role of managing opportunity pursuant to the risk management process. The general manager of the Dep. responsible for opportunity management is a member of the Corporate Strategy Council who reports to the Corporate Strategy Council and the Board of Directors every six months, and depending on the situation, directly approaches the business units to take advantage of opportunities. Explanation of each value chain stage. - Upstream The Production Planning Dep. is responsible for addressing climate-related risks from a BCP perspective, mainly in the short to medium term for upstream and in-house operations. The Environmental Planning Dep. investigates and analyses laws, standards, and regulations relating to products and sites at all value chain stages in all short, medium, and long-term spans, and gives business units feedback on risk response and making the most of opportunities. - Direct operations The Production Planning Dep. is responsible for addressing risks that include climate-related risks from a BCP perspective, mainly in the short to medium term, in-house and upstream. By investigating and analysing mainly medium- to long-term risks and opportunities in in-house and downstream operations, the Corporate Strategy Dep. clarifies issues to tackle in the short to medium-term in light of the long-term vision. The CSV/CSR Dep. investigates and analyses risks and opportunities, focusing on in-house and downstream megatrends mainly over the long term. The Corporate Planning Dep. analyses climate-related risks and opportunities reported by each Departments, determines details that should be reflected in company-wide strategies and financial plans, and submits the findings to the Corporate Strategy Council. The Corporate Planning Dep. formulates company-wide goals, strategies and policies, allocates management resources, and integrates them into each business strategy mainly over the short to medium-term. The Environmental Planning Dep. investigates and analyses laws, standards, and regulations relating to products and sites in all short, medium, and long-term spans, and gives business units feedback on risk response and making the most of opportunities. With regard to products, complying with various standards relating to the environmental performance of products, such as eco-labelling, is important. Failure to adapt will result in lost market opportunities, and we therefore constantly gather information and provide feedback to the Product Development Dep. . Risk management is important as site regulations lead to increased operating costs. -Downstream The Corporate Strategy Dep. investigates and analyses short and medium-term risks and opportunities in in-house and downstream operations, and clarifies issues to tackle in the short to medium-term in light of the long-term vision. The Environmental Planning Dep. investigates and analyses laws, standards, and regulations relating to products and sites in all short, medium, and long-term spans for all value chain stages, and gives business units feedback on risk response and making the most of opportunities. - Case study of physical risks and opportunities We were concerned about the damage and impact caused by flooding and high tides upstream of the value chain and in-house. In 2019, the CSV/CSR Dep., together with a specialist external research organization, investigated, using literature, short- to medium-term flooding and high tide trends and identified risks based on impact forecasts.As a result of evaluating 36 sites (17 in Japan and 19 overseas), we estimated that future operational risks due to flooding (river overflow) and high tides will not have a fatal impact on our business.The findings were reported to and confirmed by the Corporate Strategy Council and the Board of Directors. As a first step in considering physical risks to suppliers, we selected major suppliers in Japan and overseas who account for more than 80% of our procurement spend and determined their CO2 emission factors, such as the power and gas required for parts for Epson, and their actual consumption of water resources. We share these survey results with suppliers to develop engagement activities with them to improve their production lines to reduce power and water consumption in their production processes and to reduce the environmental impact of transportation. - Case study of transitional risks and opportunities In order to increase transition opportunities, we need to increase R&D capabilities and production capacity of inkjet technology. Raising funds is therefore important and so in December 2019 we established a green bond framework and issued 70 billion yen's worth of green bonds in July 2020. Furthermore, as part of our Environmental Vision 2050 revised in March 2021, we decided to invest 100 billion yen over 10 years (until 2030) in decarbonization, closed resource loop, and environmental technology development, and explained the plan at our annual shareholders meeting in June 2021.

C2.2a

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

	Relevance & inclusion	Please explain
Current regulation	Relevant, always included	We analysed information collected by the Environmental Planning Dep. via employees responsible for the environment at local sales subsidiaries in each country and industry associations, and the findings were presented and policies were reviewed at monthly liaison meetings attended by employees responsible for the environment from each business unit. Important findings included in the information collected and reviewed were reported each week to the general manager of the Production Planning Division and the following risks were identified. The identified risks were submitted to the Corporate Strategy Council and reported to the Board of Directors. Examples of current regulation affecting our production and business sites include the GHG cap under Tokyo's cap-and-trade scheme. Another is the stringent rules governing the use of fluorocarbons, which our semiconductor plants use for refrigeration. Additionally, Japan levies a surcharge on electricity prices to maintain its feed-in-tariff system for renewables. This surcharge grows each year. The surcharge for FY2018 was 2.90 yen per kilowatt-hour. The figure was 2.95 in FY2019, 2.98 in FY2020, and 3.36 in FY2021. Examples of current regulation affecting our products include the ENERGY STAR®, the EU's ErP Directive, and the US EPEAT program. The specific country names that Epson sells and need to comply with the current regulations are as follows: Japan, South Korea, mainland China, Taiwan, Malaysia, Singapore, Vietnam, Italy, Sweden, USA, Mexico, Canada, and Belarus. These regulations target Epson's consumer and office inkjet printers & MFPs. Epson's most important core field. Epson's sales revenue in FY2020 was 995.9 billion yen and the printing solutions business sales revenue was 707.7 billion yen. About 40% of this came from the sale of inkjet printers & MFPs, which are subject to these regulations.
Emerging regulation	Relevant, always included	We identified risks relating to emerging regulations using the same process we used to identify risks associated with current regulations. From FY2019, ENERGY STAR®, which sets the low-energy functionality of inkjet printers & MFPs, flagship products that support Epson's business, adopted even stricter energy-saving standards. Market share was at risk of contracting if it was not possible to satisfy its program requirements. The criteria for this program are regularly tightened and so it is important to constantly gather information and develop technology. Epson's printers and projectors are subject to the European ErP Directive, and we will lose its European market if we fail to meet power consumption standards set by the directive. The European market accounts for 21% of Epson's sales revenue and we could be taking a major risk, depending on how we respond. New energy saving standards are scheduled to be introduced for EPEAT, and failure to comply with these standards will deprive us of sales opportunities in the US market, which is another major risk. Epson's sales revenue in FY2020 was 995.9 billion yen and the printing solutions business sales revenue was 707.7 billion yen. About 40% of this came from the sale of inkjet printers & MFPs, which are subject to these regulations. An example of an emerging regulation affecting our production and business sites include the rising energy surcharge under the feed-in-tariff system. If the surcharge continues to increase year by year, it may lead to heavier operating costs. Another example is Singapore's Carbon Pricing Act of 2018. Under this legislation, the government will reportedly introduce a carbon tax in FY 2019 and steadily increase it until 2030. This development would lead to heavier operating costs in the city-state.
Technology	Relevant, always included	In product development, we conduct product assessments to check environmental performance. Based on the gathering and analysis of information on trends in environmental labels and laws and regulations by the Environmental Planning Dep. and the Departments in charge of the environment at business units, we identify technical topics that need to be addressed and systematically develop technologies so that they are ready when necessary. Important findings included in such information collected and reviewed were reported each week to the general manager of the Production Planning Division. The Corporate Planning Dep., in cooperation with the Technology Development Dep., constantly grasps technological development trends in society and the state of in-house development, and reports thereon at least twice a year to the Corporate Strategy Council. Through these processes, technology-related risks were identified as follows. Many product sustainability standards (as in eco-labelling and other environment regulations) are based on a top runner approach. That is, future standards are shaped by the sustainability specifications of market-leading products. We often need advanced energy-saving technology. If there is a delay in technological development to satisfy this regulation, it becomes a fatal risk, as sales opportunities will be lost due to an inability to meet the conditions for bidding on public procurement contracts. There is also an increasing demand for the materials used in products themselves and in their packaging to emit less greenhouse gases during their production and disposal. If we are unable to develop materials that can meet such demands, our competitiveness in the market will decline and this will be a risk factor.
Legal	Relevant, always included	Our corporate-level and business-level environment departments work together to ensure the environmental performance of our products by checking calculations and identifying any erroneous information. As part of our company-wide system for managing labelling, we have produced a set of guidelines for managing eco communications. Information disclosure needs to be managed to avoid the legal risks identified below. If we disclose climate related information incompletely or inaccurately, we may be accused of greenwashing and subjected to litigation. The information processing equipment business, an Epson's core area, is one of the more advanced business genres in the entire industry when it comes to initiatives to tackle climate change, and advanced disclosure of information is required. Information disclosure without action or results is a risk. Even if it does not lead to litigation, the brand image could be damaged, likely resulting in a significant drop in sales of not only the products concerned but also of Epson brand products in general.
Market	Relevant, always included	We have identified market risks using a similar process to the risk assessment process for technology. Amid the demand for more energy-efficient products, we face the risk that we may fail to meet such demand. Many public procurers (e.g., government agencies) stipulate a national ecolabel as a requirement in tenders. For example, in Germany, products must have Blue Angel (Blauer Engel) certification. In the US, they must be EPEAT-compliant. Failure to meet such a requirement would deprive us of market opportunities. Because we have shifted from a business-to-consumer to business-to-business strategy, the loss of public procurement opportunities represents a serious business risk. The European ErP Directive, which applies to Epson's printers and projectors, includes standards for power consumption, which must be met before printers and projectors can be sold in Europe. The European market accounts for approximately 21% of Epson's sales revenue and we could be taking a great risk by not complying with the ErP Directive. Another possible market change is a rise in the price of fossil fuel. The risk here is that higher prices will increase the energy costs in our own operations as well as the cost of materials and parts purchased by Epson and this will result in a fall in our profits. As climate change becomes more serious and the function of forests attracts attention, demand for forest conservation has increased worldwide following a series of forest fires. The supply of paper is expected to decline due to a decrease in the supply of wood. A fall in paper use due to a decline in the paper supply will result in lower printer profits. The CSV/CSR Dep., together with an external specialist research organization, studies future trends with regard to the risks resulting from energy price trends and the declining demand for paper, and forecasts their impact. The findings are reported to and confirmed by the Corporate Strategy Council and the Board of Directors.
Reputation	Relevant, always included	We can only make environmental disclosures if we have practices and outcomes to disclose. The Environmental Planning Dep. is spearheading efforts to analyse the kinds of corporate practices that the market and public demand. The Environmental Planning Dep. identifies the contents that may damage the reputation as risks, recommend measures for risk avoidance to management and incorporate them into company-wide measures. Increased ESG investment, increased awareness of the SDGs, and recommendations in the TCFD's final report have increased investor and client interest in corporations' environmental practices. As a trend, there is an increasing need to disclose information in financial reporting that was once considered non-financial, and if a company fails to properly disclose this information, it will be perceived as being unable to address climate-related issues or unable to disclose appropriate information, which will result not only reputational damage but also in the risk of being ignored as an investment target. Since the IPCC published a Special Report on Global Warming of 1.5 °C in October 2018, the demand for mitigation and adaptation to climate change has increased worldwide, and the need for companies to address global warming has increased greatly. Allowing ourselves to fall behind this trend would be a great risk.
Acute physical	Relevant, always included	The CSV/CSR Dep., together with an external specialist research organization, studied future flooding trends and predicted the impact thereof and identified risks. The findings are reported to and confirmed by the Corporate Strategy Council and the Board of Directors. Flooding has been identified as an acute physical risk that will impact Epson's sites. Facilities and equipment at sites may sustain damage or be inoperable if rivers and lakes located close to Epson's sites flood, and there is a risk of being unable to manufacture or ship products. As climate change worsens, it increases the likelihood of extreme weather events such as massive flooding and mega-storms, which threaten to disrupt our supply chains. Droughts, too, would ultimately disrupt supply because the affected suppliers would have to suspend operations. When flooding occurred in Thailand in 2011, production declined. Even though none of our factories were affected, damage at our part producers' sites resulted in procurement shortfalls. This resulted in a three billion yen decline in revenue. Having learned lessons from a flooding event in Thailand, we adopted a multiple supplier strategy to ensure a stable supply of basic goods. The Production Planning Dep. assesses risks each year in cooperation with suppliers from a business continuity perspective, and reports the findings to the Corporate Strategy Council.
Chronic physical	Relevant, always included	The CSV/CSR Dep., together with an external specialist research organization, studied future flooding trends and predicted the impact thereof and identified risks. The findings are reported to and confirmed by the Corporate Strategy Council and the Board of Directors. High tides will affect Epson sites located in coastal areas. High tides may damage or render facilities and equipment at sites inoperable, and sites may have to be relocated to an area unaffected by the high tide. There is a risk of costs being incurred as a result of relocating. Rising mean temperatures may force us to use more air conditioning in the summertime, leading to an increase in operating costs. Higher temperatures also cause the general public to consume more energy for keeping cool, which presents another risk. That is, if the public uses too much energy, the government may impose energy restrictions, which would affect operation at our production sites. Our production and planning division assesses the risks of the energy consumption and costs associated with all business activities throughout the company. The division has also facilitated an agreement with a power company that can supply energy stably. We impress upon employees the importance of energy efficiency and using energy responsibly (not wastefully). When hot weather is forecast, we broadcast this information to employees.

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?

Downstream

Risk type & Primary climate-related risk driver

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

Decreased revenues due to reduced demand for products and services

Climate risk type mapped to traditional financial services industry risk classification

<Not Applicable>

Company-specific description

The countries and regions in which we sell our products have stringent energy-efficiency standards in the form of national ecolabels and legislation. If we fail to develop products that satisfy these standards, or if we are too slow to bring these products to market, we may lose marketing opportunities and consequently suffer significant loss of sales revenue. Low-energy functionality is a requirement of environmental labels. Products with highly energy-efficient functionality emit less greenhouse gases. Public procurers (e.g., government agencies) typically stipulate a national ecolabel as a requirement in tenders. Failure to meet such a requirement would deprive us of market opportunities. We have shifted Epson's strategic focus from business-to-consumer to business-to-business. An ecolabel is a requirement for business applications. As such, our business fortunes hinge upon the conformity of products to the environmental labels. For example, from FY2019, ENERGY STAR(r), which sets the low-energy functionality of inkjet printers & MFPs, flagship products that support Epson's business, adopted even stricter energy-saving standards. Market share was at risk of contracting if it was not possible to satisfy its program requirements. The criteria for this program are regularly tightened and so it is important to constantly gather information and develop technology. We investigate eco-labelling focusing on the following countries and regions: Japan, China, South Korea, Italy, EU, Sweden, Northern Europe, Taiwan, Germany, Singapore, Malaysia, USA, US States, Vietnam, Mexico and Canada. Epson's printers and projectors are subject to the European ErP Directive, and we will lose its European market if we fail to meet power consumption standards set by the directive. The European market accounts for 21% of Epson's sales revenue and we could be taking a great risk, depending on how we respond. New energy saving standards are scheduled to be introduced for EPEAT in the US, and failure to comply with these standards will deprive us of sales opportunities in the US market, which is another major risk. The Americas is our most important market, accounting for 28% of our sales revenue.

Time horizon

Medium-term

Likelihood

Likely

Magnitude of impact

Medium-high

Are you able to provide a potential financial impact figure?

Yes, a single figure estimate

Potential financial impact figure (currency)

4430000000

Potential financial impact figure – minimum (currency)

<Not Applicable>

Potential financial impact figure – maximum (currency)

<Not Applicable>

Explanation of financial impact figure

Epson's sales revenue in FY2020 was 995.9 billion yen. Of our sales revenue, 509.3 billion yen was in our printer business, and since 87% came from office and commercial-use inkjet printers, 87% of 509.3 billion yen (443.1 billion yen) is the sales revenue for such inkjet printers. Of our inkjet printers, products for business use, which are likely to be subject to public procurement and laws and regulations, account for more than 50% of sales revenue. When aggregating Epson's market across the four regions of Europe, Japan, the Americas, and Asia/Oceania, the European market accounts for about one-fifth of our sales revenue. If we are late in getting products eco-labelled, we will miss out on public procurement opportunities, and financial performance would suffer as a result. Specifically, failure to comply with strict European regulations would translate to lost opportunities of up to 44.3 billion JPY. The basis for this calculation is business uses sales revenue accounting for 50% of the 443.1 billion yen and one-fifth of that being the lost sales opportunities. $443.1 \text{ billion yen} \times 0.5 \times 0.2 = 44.3 \text{ billion yen}$

Cost of response to risk

75000000

Description of response and explanation of cost calculation

We manage this risk by holding meetings to investigate policy and regulatory trends, and to consider the need for action and what form that action should take. Such meetings, held monthly, are organized by the Environmental Planning Dep. and attended by employees in charge from each business units. We collect information on the introduction of new policies and regulations as well as changes to existing ones mainly from two routes: 1) Affiliated industrial associations 2) Employees working at locally incorporated companies The compiled information is analysed by the Environmental Planning Dep. in collaboration with related internal Departments and response measures are considered. Response measures are decided in consultation with the business unit or locally incorporated company that will introduce the measures. For example, when obtaining information on plans to upgrade Energy Star(r) in 2017, we predicted what the new low-energy values should be based on our investigations, and then made the decision to bring our new product development targets in line with these numbers. In some cases, the Corporate Strategy Council determines the response. This enabled us to finish product commercialization by October 2019, when the new version was issued, thus avoiding any loss of sales opportunities. There were no events considered to be climate-related risks in FY2020. Ten employees will be needed to undertake this management. Since Epson's average annual salary is about 7.5 million yen, and there for the management cost will come to $7.5 \text{ million yen} \times 10 = 75 \text{ million yen}$.

Comment**Identifier**

Risk 2

Where in the value chain does the risk driver occur?

Direct operations

Risk type & Primary climate-related risk driver

Emerging regulation	Carbon pricing mechanisms
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Primary potential financial impact

Increased indirect (operating) costs

Climate risk type mapped to traditional financial services industry risk classification

<Not Applicable>

Company-specific description

We produce many of our products in Japan, China, Indonesia, Philippines, Thailand, Malaysia, Singapore, USA, Brazil, UK and Italy. If these countries adopt carbon taxes or analogous systems, then higher energy prices could lead to the risk of increased operating costs. Japan has adopted a feed-in-tariff (FIT) system that imposes a surcharge on energy consumption. This surcharge increases each year. The surcharge for FY2018 was 2.90 yen per kilowatt, while the in FY2019 the surcharge was 2.95 yen per kilowatt-hour. The figure for FY2020 is set for 2.98 yen per kilowatt-hour. Our energy costs will increase if other countries adopt a similar system. A carbon tax was introduced in Singapore in 2019. While the tax does not currently affect our business, we are keeping a close eye on the tax rate as it is likely to increase in 2023. An emissions trading system between companies was launched in China in 2021 and we are currently assessing its future impact on our business. We estimate that the impact of higher oil prices on transportation costs will have the greatest potential financial impact on production. Our production sites are not located in areas where products are sold, and thus products need to be transported from production sites to sales areas. Our main production sites are in China and Southeast Asia, and our largest market is North America. This means that our products must travel approximately 16,400 km over the Pacific Ocean and approximately 4,000 km over land in North America. Shipping and air transportation is used for long-distance transportation. The price of energy derived from fossil fuels may increase in the future as a result of global regulations, in which case transportation costs are at risk of increasing. Our manufacturing sites in Singapore and China employ about 730 and 7,500 people, respectively. These crucial sites account for about 10% of the Epson Group's total workforce.

Time horizon

Medium-term

Likelihood

Likely

Magnitude of impact

Medium

Are you able to provide a potential financial impact figure?

Yes, an estimated range

Potential financial impact figure (currency)

<Not Applicable>

Potential financial impact figure – minimum (currency)

9400000000

Potential financial impact figure – maximum (currency)

16600000000

Explanation of financial impact figure

We estimated the increase in transportation costs over a long time span, up to 2040. The CSV/CSR Dep. calculated the change in shipping transportation fuel costs in 2040 based on the IEA scenario for 2020, as being a value 1.41 to 1.67 times higher. Similarly, the change in air transportation fuel costs was estimated to be between 1.23 and 1.64 times higher in 2040. If current shipping transportation costs are set at 20 billion yen per year and air transportation costs at 5 billion yen per year, then by 2040 costs may have increased to between 8.2 and 13.4 billion yen for shipping and to between 1.2 and 3.2 billion yen for air transportation. Combined, the potential financial impact is estimated at between 9.4 and 16.6 billion yen.

Cost of response to risk

75000000

Description of response and explanation of cost calculation

Based on information such as new or revised policies and regulations, the Environmental Planning Dep., in collaboration with related internal Dep.s, analyses information and considers response measures. As a specific response, we changed the transportation route from our production sites in China and Southeast Asia to the South African market, which significantly reduced CO2 emissions. Previously, due to operational constraints, cargo was transported to South Africa via Dubai or Freiburg. We successfully reduced CO2 emissions during transportation by 30-70% as a result of reviewing our operations and being able to transport cargo directly. Response measures are decided in consultation with the business unit or locally incorporated company that will introduce the measures. In some cases, the Corporate Strategy Council determines the response. The Production Planning Dep. and the Environmental Planning Dep. play a central role in developing energy-saving measures at each production site. The CSV/CSR Dep., together with external specialist research organizations, studies future trends in the long-term energy price outlook and forecasts their impact. The findings are reported to and confirmed by the Corporate Strategy Council and the Board of Directors. Ten employees will be needed to undertake this management. Since Epson's average annual salary is about 7.5 million yen, and there for the management cost will come to 7.5 million yen x 10 = 75 million yen.

Comment

Identifier

Risk 3

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
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Primary potential financial impact

Decreased revenues due to reduced production capacity

Climate risk type mapped to traditional financial services industry risk classification

<Not Applicable>

Company-specific description

Our supply chains and production are at risk of being disrupted. In Japan, China, Indonesia, the Philippines, Taiwan, and Singapore, where suppliers who account for more than 50% of our procurement spend for printers and projectors, our flagship products, are located, it is anticipated that climate change will increase the likelihood and

severity of disasters. In addition to damaging our suppliers, typhoons, cyclones, strong winds and heavy rains may disrupt our distribution infrastructure. We use business continuity planning to mitigate physical risks to our suppliers resulting from climate change. Nonetheless, an unexpected weather event may significantly impact our financial performance. Even if our suppliers' sites are not damaged, our supply chain will become fragmented if the transportation network is shutdown. For the most part, such situations cannot be avoided merely by the efforts of Epson and our suppliers.

Time horizon

Medium-term

Likelihood

Likely

Magnitude of impact

Medium-high

Are you able to provide a potential financial impact figure?

Yes, a single figure estimate

Potential financial impact figure (currency)

9960000000

Potential financial impact figure – minimum (currency)

<Not Applicable>

Potential financial impact figure – maximum (currency)

<Not Applicable>

Explanation of financial impact figure

Procurement spend from suppliers in China and South East Asia, who are particularly likely to be impacted by acute physical risks related to climate change, account for approximately half of our total procurement spend. Based on previous flooding in Thailand and other cases, it is conceivable that supplies from sources may be cut off for one week, and this could translate to a loss of 1 percent in sales revenue. If the supply of items accounting for 50% of all procurement spend is disrupted for one week out of 50 weeks per year, 1/50 of supplies will not be available, which translates to an impact of 1% ($0.5 \times 1/50 = 0.01$). Our revenue for FY2020 was 995.9 billion yen. This means that the potential financial impact is 10 billion yen (1%).

Cost of response to risk

750000000

Description of response and explanation of cost calculation

Climate changed related physical risks involve a plethora of uncertainties. The Production Planning Division's Production Planning Dep. and Environmental Planning Dep. spearhead efforts to collect and analyse information on suppliers BCPs to raise the accuracy of our information and forecasts. We also encourage our suppliers to address risks. We use briefings and written requests to impress upon suppliers the need to reduce their GHG emissions and improve their BCP, in the hope that we encourage suppliers to raise their ability to respond to risks. Epson, which calls its system for managing and minimizing business damage and losses "BCM" (business continuity management), has asked its suppliers to build a BCM. Ten employees will be needed to undertake this management. Since Epson's average annual salary is about 7.5 million yen, and there for the management cost will come to 7.5 million yen $\times 10 = 75$ million yen.

Comment

C2.4

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

Yes

C2.4a

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

Identifier

Opp1

Where in the value chain does the opportunity occur?

Downstream

Opportunity type

Products and services

Primary climate-related opportunity driver

Development and/or expansion of low emission goods and services

Primary potential financial impact

Increased revenues resulting from increased demand for products and services

Company-specific description

The Corporate Strategy Council and the Board of Directors confirmed that maintaining and reinforcing a strategy of "advancing the frontiers of industry" and "achieving sustainability in a circular economy", with a focus on inkjet innovation using our proprietary technology, is an important climate-related opportunity. Realizing these strategies by leveraging the inkjet technology we have developed over the years to the full to expand our existing and new inkjet businesses creates opportunities. "Advancing the frontiers of industry" in particular is central to creating climate-related opportunities and we are working on: - Realizing resource-saving and highly-efficient production processes, and - collaboration and open innovation focused on inkjet print heads By realizing resource-saving and highly-efficient production processes, we hope to enhance performance and develop the market for conventional inkjet printers, focusing on large capacity ink tank printers and digital textile printers. Printers used in offices were typically electrophotographic printers. However, printing methods using inkjet technologies consume much less power and they are increasingly being used in offices. We have also launched a high-capacity ink tank printer. High-capacity systems not only dramatically reduce the frequency of ink refills and improve user convenience, but they also dramatically reduce the cartridges and other resources required for ink replacement and refilling. This is true not only in comparison to inkjet printers, but also in comparison to electrophotographic offerings, as it consume significantly less consumable resources such as toner bottles, photoreceptors and developer containers. Reducing resources significantly contributes to carbon dioxide emissions generated at all life stages of such parts, from the extraction of raw

materials to the manufacturing and transportation of parts. In other words, our inkjet high-capacity ink tank printers have significantly reduced carbon dioxide emissions in terms of both power and resource consumption. For example, the WorkForce Enterprise series, the flagship model for business use, consumes less power than laser printers, thereby reducing office running costs. In a performance comparison by an external evaluation agency, the WF-C20600 was found to be able to reduce annual power consumption by approximately 80% on average, compared to colour laser multifunction printers manufactured by other companies.

Time horizon

Medium-term

Likelihood

Likely

Magnitude of impact

Medium-high

Are you able to provide a potential financial impact figure?

Yes, a single figure estimate

Potential financial impact figure (currency)

301000000000

Potential financial impact figure – minimum (currency)

<Not Applicable>

Potential financial impact figure – maximum (currency)

<Not Applicable>

Explanation of financial impact figure

We sold more than 10.4 million high-capacity ink tank printers in FY2020. Our sales revenue from printers in FY2020 was 509.3 billion yen. Inkjet printers accounted for 87% of sales. If the unit sales ratio for high-capacity ink tank printers is 1, the ratio for small-office-home-office (SOHO) and home use printers was 0.47. This means that high-capacity ink tank printer sales revenue could have exceeded 301 billion yen ($509.3 \times 0.87 \times 1/1.47 = 301$ billion yen, Unable to disclose the exact figure according to Epson policy). The unit price of printers is higher for high-capacity ink tank printers, and therefore sales revenue should have been higher than the sales volume ratio. Replacing conventional electrophotographic printers with inkjet-type high-capacity ink tank printers will reduce carbon dioxide emissions and thus sales revenue for this type of printer has a financial impact of climate-related opportunities.

Cost to realize opportunity

100000000000

Strategy to realize opportunity and explanation of cost calculation

Given the importance of addressing climate change, we revised Epson 25, our long-term vision to Epson 25 Renewed following confirmation by the Corporate Strategy Council and the Board of Directors. Aiming to achieve sustainability and enrich communities, Epson 25 Renewed positions the environment, DX, and co-creation at the core of our efforts. In terms of the environment, we will work to decarbonize and recycle resources, and promote the provision of products and services that reduce our environmental impact, and the development of environmental technologies. More specifically, we will consider environmental initiatives to be business opportunities and invest management resources in them. To accomplish our material issues of "advancing the frontiers of industry" and "achieving sustainability in a circular economy", we will further strengthen and develop our proprietary inkjet technologies, including commercial and industrial printing, print head field sales, and production systems. Hoping to realize this opportunity, in March 2021 we announced plans to invest 100 billion yen over the next 10 years, until 2030, to achieve decarbonization, closed resource loop, and develop environmental technologies. In addition to this 100 billion yen, we will focus most of our management resources on the development of products and services that contribute to reducing our environmental impact. Inkjet innovation is at the heart of these products and services.

Comment

Identifier

Opp2

Where in the value chain does the opportunity occur?

Direct operations

Opportunity type

Resource efficiency

Primary climate-related opportunity driver

Use of more efficient production and distribution processes

Primary potential financial impact

Increased access to capital

Company-specific description

The Corporate Strategy Council and the Board of Directors confirmed that maintaining and reinforcing a strategy of "advancing the frontiers of industry" and "achieving sustainability in a circular economy", with a focus on inkjet innovation using our proprietary technology, is an important climate-related opportunity. Realizing these strategies by leveraging the inkjet technology we have developed over the years to the full to expand our existing and new inkjet businesses creates opportunities. Considerable investment is needed to develop these businesses. Rather than only securing funds by Epson alone, we indicate that the above-stated strategies would be ESG investment targets, and as a result, procuring funding through investment will help our business develop quickly and contribute to the realization of a sustainable society, which in turn will increase our revenue. Therefore, Seiko Epson established a green bond framework in December 2019. It is aligned with the Green Bond Principles of the International Capital Market Association and obtained a second-party opinion from rating company Sustainalytics to verify that requirements are met. In addition, Rating and Investment Information, Inc. (R&I) gave Seiko Epson's green bonds a GA1 rating, its highest rating, in an R&I Green Bond Assessment. After establishing the framework, we continued to procure funding, and decided to issue 70 billion yen's worth of green bonds in July 2020.

Time horizon

Short-term

Likelihood

Likely

Magnitude of impact

High

Are you able to provide a potential financial impact figure?

Yes, a single figure estimate

Potential financial impact figure (currency)

7000000000

Potential financial impact figure – minimum (currency)

<Not Applicable>

Potential financial impact figure – maximum (currency)

<Not Applicable>

Explanation of financial impact figure

We have selected a number of projects that we believe will help us achieve a sustainable society and developed a framework for funding these projects through green bonds. Funding required for these projects refers to capital investment and indirect costs. Capital investment will enhance product development and strengthen production capabilities. Indirect costs will encourage the procurement of low-carbon energy. Costs required for these projects are: (1) Construction costs for a new building (Building 9) at the Hirooka Office (2) Construction costs for a new building (Building B of the Innovation Center) at the Hirooka Office (3) Construction costs for factory expansion at a manufacturing subsidiary in the Philippines (4) Costs of R&D and production facilities for high-speed linehead inkjet multifunction printers for offices (5) Costs of R&D and production facilities for commercial and industrial printers (6) Costs of R&D and production facilities for inkjet printers and the application of inkjet heads (7) Costs of R&D and production facilities for PaperLab and the application of Dry Fiber Technology (8) Costs of purchasing renewable energy Costs required for these projects amount to 70 billion yen.

Cost to realize opportunity

37500000

Strategy to realize opportunity and explanation of cost calculation

Information was analysed and response measures were considered by the Management Control Division in collaboration with related internal Departments. Specifically, we concluded that we needed to finance from outside the company by issuing Green Bonds to ensure that our climate-related measures will be promoted at a large scale. The final decision was made by the Corporate Strategy Council. Five employees will be needed to undertake this management. Since Epson's average annual salary is about 7.5 million yen, and there for the management cost will come to 7.5 million yen x 5 = 37.5 million yen. These Green Bonds were proposed by the Financial Planning and Management Department. The CS/Quality Assurance & Environment Department and CSR/CSV Office participated in the selection process.

Comment**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

Increased revenues resulting from increased demand for products and services

Company-specific description

The Corporate Strategy Council and the Board of Directors confirmed that maintaining and reinforcing a strategy of "advancing the frontiers of industry" and "achieving sustainability in a circular economy", with a focus on inkjet innovation using our proprietary technology, is an important climate-related opportunity. Realizing these strategies by leveraging the inkjet technology we have developed over the years to the full to expand our existing and new inkjet businesses creates opportunities. "Advancing the frontiers of industry" in particular is central to creating climate-related opportunities and we are working on: - Realizing resource-saving and highly-efficient production processes, and - collaboration and open innovation focused on inkjet print heads Inkjet technology is basically energy saving. The proprietary inkjet technology we have developed allows materials to be applied in the required quantities to the required areas only, which has the potential to revolutionize production methods from a production and manufacturing perspective. Only using the required amount of materials could reduce waste substantially to zero. Discharged materials are expected to be cells and metals and application is expected to greatly exceed that of conventional printers. Our inkjet heads could potentially be used in a diverse range of areas and use solely by Epson would limit its scope and the quantity of use. Climate-related opportunities can be maximized and realized through collaboration and open innovation. For example, a new method of fabricating circuit boards was achieved through collaboration with Elephantech Inc. In this fabrication method, inkjet technology is used to print metal nanoparticles only where required on a board and then the metal is grown using electroless deposition technology. In conventional board fabrication, copper foil is dissolved by etching, producing waste. Inkjet fabrication creates no material waste and consumes as little as 1/15th the energy.

Time horizon

Medium-term

Likelihood

Likely

Magnitude of impact

Medium

Are you able to provide a potential financial impact figure?

Yes, a single figure estimate

Potential financial impact figure (currency)

9000000000

Potential financial impact figure – minimum (currency)

<Not Applicable>

Potential financial impact figure – maximum (currency)

<Not Applicable>

Explanation of financial impact figure

A strategy of collaboration and open innovation focused on inkjet print heads will increase revenue by promoting field sales. In FY2018 Epson's share of the print head field sales market stood at 18%. Given the competitive potential of our Precision Core heads and strengthening of our approach to other companies through our strategy of collaboration and open innovation, we have set a goal of increasing our market share to 70% by FY2025. The print head field sales market was worth just under 90 billion yen in FY2018 and is expected to expand at a rate of 6% per year. This means that the market is projected to be worth 130 billion yen in FY2020. As a result, we have estimated that print head field sales revenue, which stood at around 20 billion yen in FY2019 may increase to 90 billion yen (70% of 130 billion yen) in FY2025.

Cost to realize opportunity

10000000000

Strategy to realize opportunity and explanation of cost calculation

The Corporate Strategy Council and the Board of Directors confirmed that it will maintain and reinforce a strategy of "advancing the frontiers of industry" and "achieving sustainability in a circular economy", with a focus on inkjet innovation using our proprietary technology, to achieve Epson 25, our long-term corporate vision. This strategy was formulated as our medium- to long-term strategy and is a climate-related opportunity in itself. For this reason, our strategy for realizing climate-related opportunities lies at the heart of our business strategy. Given the importance of addressing climate change, we revised Epson 25, our long-term vision to Epson 25 Renewed following confirmation by the Corporate Strategy Council and the Board of Directors. In terms of the environment, a core initiative, we will work to decarbonize and recycle resources, and promote the provision of products and services that reduce our environmental impact, and the development of environmental technologies. We will consider environmental initiatives to be business opportunities and invest management resources in them. To accomplish our material issues of "advancing the frontiers of industry" and "achieving sustainability in a circular economy", we will further strengthen and develop our proprietary inkjet technologies, including commercial and industrial printing, print head field sales, and production systems. As a concrete result, in February 2021 Elephantech started operations at a large mass production and research complex in Nagoya, manufacturing inkjet-printed electronic circuits. This technology significantly reduces the environmental impact compared to conventional manufacturing methods. In March 2021 we announced our plans to invest 100 billion yen over the next 10 years until 2030 to achieve decarbonization, closed resource loop, and develop environmental technologies. In addition to this, we will focus most of our management resources on the development of products and services that contribute to reducing our environmental impact.

Comment

C3. Business Strategy

C3.1

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

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

C3.1a

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

	Is your low-carbon transition plan a scheduled resolution item at AGMs?	Comment
Row 1	No, but we intend it to become a scheduled resolution item within the next two years	We presented our low carbon transition plan as one of the prerequisites for shareholders to deliberate as an agenda item in the notice of the ordinary general meeting of shareholders in June 2021. The plan consists of Epson 25 Renewed, a revised version of our long-term vision Epson 25, and Environmental Vision 2050, a revised version of the existing vision. In Epson 25 Renewed, we stated that our goal is "co-creating sustainability and enriching communities", identified the achieving sustainability in a circular economy as a corporate material issue, and positioned the "environment", "DX" and "co-creation" as the three key elements for realizing our goal. We also revised Environmental Vision 2050 to make our environmental efforts clearer and more ambitious, setting the goals of becoming carbon negative and underground resource free by 2050, and reducing total greenhouse gas emissions in line with the 1.5°C scenario by 2030. In addition, in the "issues to be addressed" section of the business report in the notice of the ordinary general meeting of shareholders, we indicated that we would achieve "carbon negative" and be "underground resource free" by 2050. Our goal of becoming carbon negative is mentioned. We presented our low carbon transition plan in the notice of the ordinary general meeting of shareholders to demonstrate the transparency of the plan and to have investors and stakeholders evaluate our initiatives to align our business model to succeed in a net-zero emissions economy.

C3.2

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

Yes, quantitative

C3.2a

(C3.2a) Provide details of your organization's use of climate-related scenario analysis.

Climate-related scenarios and models applied	Details
2DS IEA 450 IEA NPS Other, please specify (IEA 4DS, IPCC SRES A2, IPCC SRES B1)	<p>[Scenarios adopted for analysis] Focused on IEA 2DS and IEA 4DS, and used IPCC SRES A2, IPCC SRES B1, IEA 450, and IEA NPS supplementarily. We believed it was necessary to assess our resilience and future opportunities based on the less than 2°C and 4°C scenarios. [Time horizon] Epson has developed Environmental Vision 2050, setting 2050 as our long-term goal. We have established an assessment time horizon up until 2060, which includes 2050. [Target sectors] Our business strategy is to develop proprietary inkjet technology and we made the inkjet business the target of the scenario analysis. We analysed the existing inkjet business, which focuses on printers, and new businesses in which inkjet heads are being applied in various industries. In the existing inkjet sector, changes in demand for paper and paper processing costs are considered to be important parameters affecting business, and we analysed the business taking these parameters into consideration. We also analysed the chronic and acute physical risks at our sites. [Summary of scenario analysis] - A company-specific description summary: It is important to consider how best to analyse energy and resource conservation, inherent characteristics of inkjet, and paper trends (changes in the demand for paper and paper processing costs) that are closely linked to printers, and how to reflect analysis results in our strategies. We examined paper trends by referring to reports issued by trustworthy public agencies. These reports analyse production and demand trends for products from forests based on IPCC scenarios. We have production and sales facilities throughout the world. However, the intensity of physical risks is expected to vary at each facility, and we analysed the changes and impact of floods and high tides based on climate forecasts for the regions in which our facilities are located. - how the results of the scenario analysis have informed your business objectives and strategy: During 2°C scenario analysis, we found that our transition risks are limited. Having identified the risk of a decline in demand for paper due to forest conservation and digitalization, we decided to monitor the situation, including the impact of climate change, from a long-term perspective. Meanwhile, in order to achieve 2°C scenario, restrictions have been placed on energy and power usage, and carbon taxes have been increased, which confirms the potential increase in market opportunities for inkjet technology with superior energy-saving attributes. By evaluating each facility, we surmised that high tides and flooding will not have any impact on our business. During 4°C scenario analysis, we discovered that while physical risks are greater than in the 2°C scenario, the 4°C scenario will not have an exceptionally damaging impact on our business. We confirmed that proceeding with our current strategy will lead to the realization of a 2°C scenario society, which will expand our business opportunities. We also found that we will be able to maintain business continuity by preparing for a 4°C society and maintaining and strengthening our resilience to a more intense climate. - how the results of the scenario analysis have directly influenced your business objectives and strategy We analysed risk and opportunity factors at Epson. Based on these findings, the Corporate Strategy Council reviewed the results of this analysis in June 2020 and reported their findings to the Board of Directors in July 2020. The Corporate Strategy Council and the Board of Directors confirmed that maintaining and reinforcing a strategy of "advancing the frontiers of industry" and "achieving sustainability in a circular economy". In 2021, we re-examined the results of these scenario analyses based on the latest information. As a result, we found that the results of the above-stated analysis can be followed, and we reported this conclusion to the Corporate Strategy Council for their approval.</p>

C3.3

(C3.3) Describe where and how climate-related risks and opportunities have influenced your strategy.

	Have climate-related risks and opportunities influenced your strategy in this area?	Description of influence
Products and services	Yes	<p>[Situation] We have identified increased demand for low-carbon products and increased revenue from developing and marketing products to meet that demand as opportunities, and strengthened our strategies to take advantage of such opportunities. Inkjet, as our core technology, is essentially a low power consumption technology. Inkjet printers, the strength of which lies in their being energy-efficient, are expected to further expand their market in the future as the demand for high-capacity ink tank printers, one of our flagship products, is increasing. High-capacity ink tanks require significantly fewer resources for consumables than both conventional ink cartridge systems and laser systems. Because they use fewer resources, they emit less GHG and they are therefore advantageous when it comes to tackling climate-related issues. Our strategy is to strengthen our business in the commercial and industrial sectors. In addition to conventional personal and office products, we are also expanding our range of products for commercial and industrial sectors, specifically printers for commercial use such as printing posters and labels and printers for industrial use such as printing textiles and transcription. We are also aiming to provide more energy-saving printers and production methods in these sectors. The period allocated for this strategy is short (0-10 years). [Issues] There are two major challenges to expanding climate-related opportunities in this business sector: -Educating customers on the usefulness and applicability of digital textiles that use our inkjet technology, and introducing and expanding the market for digital textiles -Increasing our development and production capabilities to provide the market with environmentally-friendly printers in a timely fashion [Actions and consequences] We launched TSC Asia in June 2019 to encourage customers to use our inkjet technology to make digital textiles. TSC Asia is a solution centre equipped with facilities for the entire digital textile process and it provides support for digital textile initiatives to customers. In March 2020, we added a B wing to the innovation centre. Inkjet digital textile printer prototypes and mass-production is researched and developed in this building. Thus, we will strengthen our R&D capabilities and production capacity for low environmental impact textile printing technology.</p>
Supply chain and/or value chain	Yes	<p>[Situation and Issues] Epson sets SBT for Scope 3 Cat.1 and Cat.11. We are aware of the need to cut GHG emissions in our supply chain and have developed and implemented strategies to strengthen coordination with suppliers. GHG emissions from Category 1 account for 35% of scope 3 emissions and 30% of all scopes. Epson cannot achieve its GHG target unless suppliers are able to reduce their GHG emissions. The period allocated for this strategy is short (0-10 years). [Action] Our procurement guidelines request all of our suppliers to be aware of and comply with the code of conduct required by the Responsible Business Alliance (RBA). We joined the RBA in April 2019 as a regular member. We confirm compliance with the procurement guidelines through a detailed CSR evaluation, and coordinate with suppliers to make improvements. Detailed CSR assessments are conducted by all suppliers using the Self-Assessment Questionnaire (SAQ) based on the RBA's standards. We categorize risks based on SAQ results and provide feedback to suppliers. Suppliers evaluated as high risk are audited by an external specialist organization and evaluated on-site to use their findings for improvement activities. We have established guidelines to conduct fair and efficient evaluations, and clarify the procedures for conducting SAQs and audits. To further promote initiatives to address climate-related issues at suppliers, we conduct surveys of our major suppliers in Japan and overseas who account for more than 80% of our procurement spend to determine CO2 emission factors, such as the power and gas required for parts for Epson, and the actual consumption of water resources. This is an initiative unique to Epson. We share survey results with suppliers to engage with them in improving their production lines to reduce power and water consumption in their production processes and to reduce the environmental impact of transportation. [Results] Two key decisions: to become a regular member of the RBA and supplier's approach to Scope 1 and 2. In FY2019, 100% of SAQs were conducted to obtain responses on CO2 emission factors and actual water resource consumption stemming from products for Epson at major suppliers. We held CSR procurement briefings around the world to directly explain our policies to suppliers and seek their cooperation. The attendance rate at such meetings worldwide was 83%.</p>
Investment in R&D	Yes	<p>[Situation and Issues] Our inkjet technology allows materials to be applied in the required quantities to the required areas only, and therefore, from a production and manufacturing perspective, it has the potential to revolutionize the industrial structure. Minimizing the consumption of materials means that we can reduce the amount of energy used in material manufacturing and processing, thereby substantially reducing GHG emissions. We believe we can create and take advantage of opportunities by maximizing and realizing this potential through collaboration and open innovation, and have further strengthened our "advancing the frontiers of industry" and "achieving sustainability in a circular economy" strategies. The period allocated for this strategy is medium (10-50 years). [Action] To realize these strategies, in FY2019 we started to expand field sales of inkjet heads, the core element of inkjet, around the world. We are aiming for the widespread use in society of PrecisionCore print heads equipped with our cutting-edge technology. This in turn aims to encourage collaboration and open innovation. In July 2019, we entered into a business partnership with Elephantech Inc. (Tokyo, Japan), a start-up company active in the printed electronics sector, and introduced manufacturing methods that drastically reduce the environmental impact to fundamentally change traditional manufacturing methods of flexible printed circuit board. In August 2019, we opened Fujimi Inkjet Innovation Lab. We aim to use this facility to conduct research in cooperation with a wide range of research institutions and companies in order to use inkjet technology in the industrial sector. In October 2019, we developed an inkjet system for R&D equipped with PrecisionCore heads. We will sell this system to companies and research institutions that are working to innovate production processes using inkjet technology and to develop new materials compatible with inkjet. [Results] We developed a green bond framework in December 2019 to secure funding to aggressively promote open innovation. Green bonds target 10 projects, including investments in research and development, and we decided to issue green bonds in July 2020 worth 70 billion yen in total for all projects.</p>
Operations	Yes	<p>[Situation and Issues] Risks identified: damage to our reputation as a result of our failure to meet our GHG reduction targets, adverse effects on ESG investment ratings, and failure to take appropriate action for various laws and regulations strengthened to mitigate climate change. [Actions and Results] We strengthened our short-term (0-10 years) strategies. 1. Introduction of internal carbon pricing The decision to introduce internal carbon pricing was made by the Corporate Strategy Council in Mar. 2020 and has been approved by the Board of Directors. We plan to design a system and to officially introduce internal carbon pricing in Apr. 2022. Our basic approach will be to convert the difference between the emissions reduction targets and actual emissions each year for each business into a monetary value, and to collect the difference from businesses. Any excess will be returned to our operations. Under this system, reducing CO2 emissions will result in profit for our businesses. 2. Established a green bond framework We developed and announced a green bond framework in Dec. 2019, and issued green bonds worth 70 billion yen in July 2020 for use in 10 projects. Eight of the projects are targeted at improving operations by updating equipment, buildings, and processes to reduce GHGs. 3. Declared commitment to achieve RE100 globally by 2023 In Mar. 2020, we announced that our worldwide Group sites will all meet their electricity needs from 100% renewable electricity by 2023. We applied to join RE100 and became a member in Apr. 2021. As part of our plan to switch to 100% renewable energy at our bases in Japan during 2021, in Nagano Prefecture, where most of the bases in Japan are located, we started increasing the use of Shinshu Green Electricity in Apr. 1, 2021. All our bases in Nagano Prefecture now meet all of their electricity needs from 100% renewable electricity. 4. Epson 25 Renewed, Environmental Vision 2050 We formulated Epson 25 Renewed, a revised version of our long-term vision Epson 25, and clearly stated that we will pursue "co-creating sustainability and enriching communities". We also revised our Environmental Vision 2050, deciding to become carbon negative and underground resource free by 2050, and to reset our GHG emission reduction targets for 2030 in line with the SBTi, which complies with the 1.5°C scenario.</p>

C3.4

(C3.4) Describe where and how climate-related risks and opportunities have influenced your financial planning.

	Financial planning elements that have been influenced	Description of influence
Row 1	Indirect costs Capital expenditures Access to capital	<p>● Situation and Issues In addition to strengthening our climate change initiatives and ensuring our production facilities are environmentally friendly, we need to contribute to reducing the environmental impact of our customers by providing the market with high environmental performance products. The implementation of such efforts had a broad implication for our financial plans.</p> <p>-Climate change risk We recognize that delaying compliance with environmental regulations concerning products, such as environmental labels, and specifically, the loss of market opportunities due to lacking product development capabilities, is a climate-related risk. We are also aware that continuing to rely on fossil-based energy thereby significantly increasing operating costs due to carbon taxes and higher energy prices, is another climate-related risk. -Climate change opportunity We recognize that maintaining and reinforcing a strategy of "advancing the frontiers of industry" and "achieving sustainability in a circular economy" with inkjet innovation at its core is an important climate-related opportunity. This strategy was developed as our medium- to long-term strategy. ● Action [Impact on Financial Plans] We established a green bond framework in December 2019 having concluded that financing, focused on capital investment in particular, is necessary to avoid climate-related risks and take advantage of opportunities. Strengthening our response to climate-related issues is necessary to achieve a sustainable society, and the following are important for Epson: -Providing highly environmentally friendly products -Reducing the environmental impact at our customers -Having environmentally friendly production facilities We need to strengthen financing to further proceed with these activities and we are thus actively raising funds for environmental activities. [Time Horizon] We envisage a short- to medium-term time horizon (0-50 years). Impacted Elements of Financial Plan -Capital investment: strengthening product development and production capabilities -Indirect costs: procuring low-carbon energy [Detailed Explanation] We have selected 10 projects that we believe will help us achieve a sustainable society and developed a green bond framework for raising funds for these projects through green bonds. Funding through this framework is important to achieve Epson 25 Renewed, our long-term vision by 2025. This vision positions the environment, DX, and co-creation at the core of our efforts. In terms of the environment, we will work to decarbonize and recycle resources, and promote the provision of products and services that reduce our environmental impact, and the development of environmental technologies. More specifically, we will consider environmental initiatives to be business opportunities and invest management resources in them, and will further strengthen and develop our proprietary inkjet technologies, including commercial and industrial printing, print head field sales, and production systems. Building up our development and production facilities through capital investment will enable us to strengthen our ability to develop products with high environmental performance, enhance our product line-up, and penetrate a variety of markets. The use of environmentally friendly research and production equipment will also help us improve energy efficiency and the efficient use of resources. We will also be able to procure lower-carbon energy by financing as an indirect cost. Detailed explanation of the framework developed: Projects involving highly eco-efficient products, environmentally adapted products, environmentally friendly production technologies and processes (1) Construction costs for a new building (Building 9) at the Hirooka Office: Triple production capacity for core components of inkjet printers and MFPs and add in-house research and development functions (2) Construction costs for a new building (Building B of the Innovation Center) at the Hirooka Office: Equip office with prototype and mass production functions for large commercial and industrial printers and a digital textile test lab. Strengthen R&D and production base (3) Construction costs for factory expansion at a manufacturing subsidiary in the Philippines: Install a mega solar power system, with a maximum output of approximately 3,000 kW on the roof of the factory (4) Costs of R&D and production facilities for high-speed linehead inkjet multifunction printers for offices: Develop the office market by strengthening our product line up of inkjet MFPs, which consume significantly less energy than the laser printers more commonly used in offices (5) Costs of R&D and production facilities for commercial and industrial printers: Inkjet digital textile printers do not need plates required by analogue printers, thereby reducing processes which consume energy, water and raw materials. Penetrate the market by strengthening our line-up of digital printers and minimize inventory loss of materials, works-in-progress, and products, etc. by popularizing the use of digital garment printers suitable for small-lot, mixed production (6) Costs of R&D and production facilities for inkjet printers and the application of inkjet heads: Drive market penetration and the circular economy by enhancing our line-up of inkjet printers that reduce the environmental impact throughout their life cycle and are equipped with compact and light, energy-efficient, and circular/long life features (7) Costs of R&D and production facilities for PaperLab and the application of Dry Fiber Technology: Reduce the amount of new paper purchased and reduce transportation CO2 emissions relating to disposal and collection by penetrating the market through the development of PaperLab technology able to produce new paper without using water (8) Costs of purchasing renewable energy: Use the opportunity of starting operations at a new building (Building 9) at the Hirooka Office to expand the introduction of renewable energy (green electricity) in preparation for 2025, assume cost increases from existing power and switching costs Seiko Epson established a green bond framework that is aligned with the Green Bond Principles of the International Capital Market Association and obtained a second-party opinion from rating company Sustainalytics to verify that requirements are met. In addition, Rating and Investment Information, Inc. (R&I) gave Seiko Epson's green bonds a GA1 rating, its highest rating, in an R&I Green Bond Assessment. - Result After establishing the framework, we continued to procure funding, and decided to issue 70 billion yen's worth of green bonds in July 2020. Furthermore, as part of our Environmental Vision 2050 revised in March 2021, we decided to invest 100 billion yen over 10 years (until 2030) in decarbonization, closed resource loop, and environmental technology development, and explained the plan at our annual general meeting in June 2021.</p>

C3.4a

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

C4. Targets and performance

C4.1

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

Both absolute and intensity targets

C4.1a

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

Target reference number

Abs 1

Year target was set

2018

Target coverage

Company-wide

Scope(s) (or Scope 3 category)

Scope 1+2 (market-based)

Base year

2017

Covered emissions in base year (metric tons CO2e)

591844

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

100

Target year

2025

Targeted reduction from base year (%)

19

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

479393.64

Covered emissions in reporting year (metric tons CO2e)

470079

% of target achieved [auto-calculated]

108.283334975539

Target status in reporting year

Underway

Is this a science-based target?

Yes, and this target has been approved by the Science-Based Targets initiative

Target ambition

2°C aligned

Please explain (including target coverage)

We have set mid- to long-term GHG reduction targets in our value chain to realize our 2°C goal, a long-term target shared throughout the world, and Epson 25 Corporate Vision. These have been approved as Science Based Targets (SBT) by the Science Based Targets initiative.

C4.1b

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

Target reference number

Int 1

Year target was set

2018

Target coverage

Company-wide

Scope(s) (or Scope 3 category)

Scope 3: Purchased goods & services

Intensity metric

Metric tons CO2e per unit revenue

Base year

2017

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

1100

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

35

Target year

2025

Targeted reduction from base year (%)

44

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

616

% change anticipated in absolute Scope 1+2 emissions

0

% change anticipated in absolute Scope 3 emissions

0

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

928

% of target achieved [auto-calculated]

35.5371900826446

Target status in reporting year

Underway

Is this a science-based target?

Yes, and this target has been approved by the Science Based Targets initiative

Target ambition

2°C aligned

Please explain (including target coverage)

We have set mid- to long-term GHG reduction targets in our value chain to realize our 2°C goal, a long-term target shared throughout the world, and Epson 25 Corporate Vision. These have been approved as Science Based Targets (SBT) by the Science Based Targets initiative.

Target reference number

Int 2

Year target was set

2018

Target coverage

Company-wide

Scope(s) (or Scope 3 category)

Scope 3: Use of sold products

Intensity metric

Metric tons CO2e per unit revenue

Base year

2017

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

1443

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

43

Target year

2025

Targeted reduction from base year (%)

44

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

808.08

% change anticipated in absolute Scope 1+2 emissions

0

% change anticipated in absolute Scope 3 emissions

0

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

1106

% of target achieved [auto-calculated]

53.0775530775531

Target status in reporting year

Underway

Is this a science-based target?

Yes, and this target has been approved by the Science Based Targets initiative

Target ambition

2°C aligned

Please explain (including target coverage)

We have set mid- to long-term GHG reduction targets in our value chain to realize our 2°C goal, a long-term target shared throughout the world, and Epson 25 Corporate Vision. These have been approved as Science Based Targets (SBT) by the Science Based Targets initiative.

C4.2

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

Target(s) to increase low-carbon energy consumption or production
Net-zero target(s)

C4.2a

(C4.2a) Provide details of your target(s) to increase low-carbon energy consumption or production.

Target reference number

Low 1

Year target was set

2021

Target coverage

Company-wide

Target type: absolute or intensity

Absolute

Target type: energy carrier

Electricity

Target type: activity

Consumption

Target type: energy source

Renewable energy source(s) only

Metric (target numerator if reporting an intensity target)

Percentage

Target denominator (intensity targets only)

<Not Applicable>

Base year

2021

Figure or percentage in base year

19

Target year

2023

Figure or percentage in target year

100

Figure or percentage in reporting year

19

% of target achieved [auto-calculated]

0

Target status in reporting year

New

Is this target part of an emissions target?

Abs 1

Is this target part of an overarching initiative?

RE100

Please explain (including target coverage)

In April 2021 Epson joined the RE100 initiative and set a company-wide target to achieve 100% renewable electricity consumption by 2023. This means that worldwide Epson Group sites will all meet their electricity needs from 100% renewable energy sources (renewable electricity) by 2023. The target is still underway. This target is part of our absolute Scope 2 emissions reduction target Abs 1. The 100% renewable energy introduction plans by country / region are as follows: all Japanese sites by end of March 2022, all sites worldwide by 2023.

C4.2c

(C4.2c) Provide details of your net-zero target(s).

Target reference number

NZ1

Target coverage

Company-wide

Absolute/intensity emission target(s) linked to this net-zero target

Abs1

Int1

Int2

Target year for achieving net zero

2050

Is this a science-based target?

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

Please explain (including target coverage)

In March 2020, we revised our Environmental Vision 2050 which describes our vision for where we want to be in 2050. In this vision, we aim to become carbon negative in Scopes 1, 2, and 3 by 2050 by working to decarbonize and recycle resources, providing products and services that reduce our environmental impact, and developing environmental technologies.

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*	228	31907
Implementation commenced*	0	0
Implemented*	81	6913
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	Lighting
--------------------------------	----------

Estimated annual CO2e savings (metric tonnes CO2e)

35

Scope(s)

Scope 2 (market-based)

Voluntary/Mandatory

Voluntary

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

1224132

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

19286000

Payback period

1-3 years

Estimated lifetime of the initiative

1-2 years

Comment

We are promoting the switch to LED lighting and are proactively installing energy-efficient equipment when upgrading facilities.

Initiative category & Initiative type

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

Estimated annual CO2e savings (metric tonnes CO2e)

872

Scope(s)

Scope 2 (market-based)

Voluntary/Mandatory

Voluntary

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

18185698

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

85980000

Payback period

1-3 years

Estimated lifetime of the initiative

1-2 years

Comment

We are proactively installing energy-efficient equipment when installing new air conditioning equipment and upgrading facilities at each of our plants.

Initiative category & Initiative type

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

Estimated annual CO2e savings (metric tonnes CO2e)

2584

Scope(s)

Scope 2 (market-based)

Voluntary/Mandatory

Voluntary

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

119073650

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

233855790

Payback period

1-3 years

Estimated lifetime of the initiative

1-2 years

Comment

Our plants are working to reduce energy use by strengthening and thoroughly managing the use of equipment such as turning off unnecessary lights, adjusting air conditioner temperature settings, and controlling equipment using sensors and timers.

Initiative category & Initiative type

Energy efficiency in production processes	Compressed air
---	----------------

Estimated annual CO2e savings (metric tonnes CO2e)

112

Scope(s)

Scope 1

Voluntary/Mandatory

Voluntary

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

4789058

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

3500000

Payback period

1-3 years

Estimated lifetime of the initiative

1-2 years

Comment

Each plant checks for and repairs air leaks to eliminate loss and operates air compressors efficiently to save energy.

Initiative category & Initiative type

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

Estimated annual CO2e savings (metric tonnes CO2e)

200

Scope(s)

Scope 2 (market-based)

Voluntary/Mandatory

Voluntary

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

5143341

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

143520000

Payback period

1-3 years

Estimated lifetime of the initiative

1-2 years

Comment

We choose equipment with high environmental performance to reduce our burden on the environment when installing new equipment at each of our sites.

Initiative category & Initiative type

Low-carbon energy consumption	Solar PV
-------------------------------	----------

Estimated annual CO2e savings (metric tonnes CO2e)

110

Scope(s)

Scope 2 (market-based)

Voluntary/Mandatory

Voluntary

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

1748415

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

0

Payback period

No payback

Estimated lifetime of the initiative

1-2 years

Comment

We are working to reduce CO2 emissions by introducing solar PV based on the Power Purchase Agreement model at sites/facilities in China.

Initiative category & Initiative type

Low-carbon energy consumption	Low-carbon electricity mix
-------------------------------	----------------------------

Estimated annual CO2e savings (metric tonnes CO2e)

3000

Scope(s)

Scope 2 (market-based)

Voluntary/Mandatory

Voluntary

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

0

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

0

Payback period

No payback

Estimated lifetime of the initiative

1-2 years

Comment

We are working to reduce CO2 emissions by changing to the electricity service contract with low-carbon electricity mix at sites/facilities in Philippines and Indonesia.

C4.3c

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

Method	Comment
Dedicated budget for energy efficiency	Investment amounts are decided by an internal investment council.

C4.5

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

Yes

C4.5a

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

Level of aggregation

Company-wide

Description of product/Group of products

Epson aims to provide a high level of value to its customers through original technology and initiatives characterized by a painstaking pursuit of the most compact, energy-saving, and high-precision solutions. Particularly in Epson's printing solutions and visual communication segments, which constituted 85.3% of its sales for FY 2020, we focus on developing products with small, lightweight designs and fewer consumables to reduce the burden on the environment throughout the products' life cycle. In addition, we focus on developing products with energy-saving designs and fewer consumables to reduce the burden on the environment during use. Products: Inkjet printers, Business printers (inkjet/laser), Inkjet large-format printers, serial-impact dot-matrix printers, Inkjet Textile printers (digital textile/garment), Inkjet label printers, Receipt printers, Scanners, Projectors, Smart glasses

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

Low-carbon product and avoided emissions

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

Evaluating the carbon-reducing impacts of ICT

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

85.3

% of total portfolio value

<Not Applicable>

Asset classes/ product types

<Not Applicable>

Comment

Replacing heat-based laser printers with Hear-Free technology inkjet printers can reduce energy consumption during use. Digital inkjet textile printers can reduce greenhouse gases by shortening the process and making printing plates unnecessary. Changing projector light sources from lamps to laser light sources can reduce energy consumption and greenhouse gases. These products emit little carbon and help customers to reduce their own emissions. As such, they are classified as both low carbon products and emission avoiding products.

C5. Emissions methodology

C5.1

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

Scope 1

Base year start

April 1 2017

Base year end

March 31 2018

Base year emissions (metric tons CO2e)

136734

Comment

When setting SBT compliance targets in FY 2017, we changed the GHG emission calculation coefficient and recalculated base year GHG emissions.

Scope 2 (location-based)

Base year start

Base year end

Base year emissions (metric tons CO2e)

Comment

Scope 2 (market-based)

Base year start

April 1 2017

Base year end

March 31 2018

Base year emissions (metric tons CO2e)

455110

Comment

When setting SBT compliance targets in FY 2017, we changed the GHG emission calculation coefficient and recalculated base year GHG emissions.

C5.2

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

IPCC Guidelines for National Greenhouse Gas Inventories, 2006

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

C6. Emissions data

C6.1

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

Reporting year

Gross global Scope 1 emissions (metric tons CO2e)

124929

Start date

<Not Applicable>

End date

<Not Applicable>

Comment

C6.2

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

Row 1

Scope 2, location-based

We are reporting a Scope 2, location-based figure

Scope 2, market-based

We are reporting a Scope 2, market-based figure

Comment

C6.3

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

Reporting year

Scope 2, location-based

372401

Scope 2, market-based (if applicable)

345151

Start date

<Not Applicable>

End date

<Not Applicable>

Comment

C6.4

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

Yes

C6.4a

(C6.4a) Provide details of the sources of Scope 1 and Scope 2 emissions that are within your selected reporting boundary which are not included in your disclosure.

Source

Relatively small offices and sales companies.

Relevance of Scope 1 emissions from this source

Emissions are not relevant

Relevance of location-based Scope 2 emissions from this source

Emissions are not relevant

Relevance of market-based Scope 2 emissions from this source (if applicable)

Emissions are not relevant

Explain why this source is excluded

Our environmental activities cover all consolidated subsidiaries for financial accounting purposes. In FY 2020, 50 domestic and overseas group companies (covering more than 95% of sales revenue), including Seiko Epson Corporation were included in data aggregation. This is the same scope of data used in disclosure to CDP. Scope 1 and Scope 2 data from relatively small offices and sales companies are not included in the data we disclose to CDP.

C6.5

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

Purchased goods and services

Evaluation status

Relevant, calculated

Metric tonnes CO2e

928021

Emissions calculation methodology

Multiplied the mass of materials that comprise sold products by their emission factors. • Basic Guidelines on Accounting for Greenhouse Gas Emissions Throughout the Supply Chain (ver.2.3) • Emission Intensity Database for Calculating GHG Emissions of Organizations Throughout the Supply Chain (Ver.3.1) • IDEAv2

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

0

Please explain

Capital goods

Evaluation status

Relevant, calculated

Metric tonnes CO2e

125465

Emissions calculation methodology

Multiplied the capital expenditure in each investment account by emission factors. • Basic Guidelines on Accounting for Greenhouse Gas Emissions Throughout the Supply Chain (ver2.3) • Emission Intensity Database for Calculating GHG Emissions of Organizations Throughout the Supply Chain (Ver.3.1)

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

0

Please explain

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

Evaluation status

Relevant, calculated

Metric tonnes CO2e

34965

Emissions calculation methodology

Multiplied the amount of each type of energy used at each site by their emission factors. • Basic Guidelines on Accounting for Greenhouse Gas Emissions Throughout the Supply Chain (ver2.3) • Emission Intensity Database for Calculating GHG Emissions of Organizations Throughout the Supply Chain (Ver.3.1)

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

0

Please explain

Upstream transportation and distribution

Evaluation status

Relevant, calculated

Metric tonnes CO2e

167011

Emissions calculation methodology

Emissions from transportation to Epson of products and services purchased from suppliers, and emissions from the transport of goods by Epson, were calculated by multiplying the mass of transported goods and the distance transported by emissions factors. • GHG Protocol

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

0

Please explain

Waste generated in operations

Evaluation status

Relevant, calculated

Metric tonnes CO2e

3271

Emissions calculation methodology

Multiplied the amount of each type of waste generated at each site by their emission factors. • Basic Guidelines on Accounting for Greenhouse Gas Emissions Throughout the Supply Chain (ver2.3) • Emission Intensity Database for Calculating GHG Emissions of Organizations Throughout the Supply Chain (Ver.3.1)

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

0

Please explain

Business travel

Evaluation status

Relevant, calculated

Metric tonnes CO2e

6500

Emissions calculation methodology

Multiplied the transportation expenses for each transportation mode and lodging expenses by their emission factors. • Basic Guidelines on Accounting for Greenhouse Gas Emissions Throughout the Supply Chain (ver2.3) • Emission Intensity Database for Calculating GHG Emissions of Organizations Throughout the Supply Chain (Ver.3.1)

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

0

Please explain

Employee commuting

Evaluation status

Relevant, calculated

Metric tonnes CO2e

45386

Emissions calculation methodology

Multiplied the transportation expenses for each transportation mode by their emission factors. • Basic Guidelines on Accounting for Greenhouse Gas Emissions Throughout the Supply Chain (ver2.3) • Emission Intensity Database for Calculating GHG Emissions of Organizations Throughout the Supply Chain (Ver.3.1)

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

0

Please explain

Upstream leased assets

Evaluation status

Relevant, calculated

Metric tonnes CO2e

3435

Emissions calculation methodology

For emissions from the operation of leased assets (excluding those not already included in scope 1 or scope 2 inventories), the floor area of leased buildings was multiplied by emission factors. • Basic Guidelines on Accounting for Greenhouse Gas Emissions Throughout the Supply Chain (ver2.3) • Emission Intensity Database for Calculating GHG Emissions of Organizations Throughout the Supply Chain (Ver.3.1)

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

0

Please explain

Downstream transportation and distribution

Evaluation status

Relevant, calculated

Metric tonnes CO2e

5516

Emissions calculation methodology

Multiplied the sold product not shipped by Epson and the average distances of transported volumes by their emission factors per unit. • GHG Protocol

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

0

Please explain

Processing of sold products

Evaluation status

Relevant, calculated

Metric tonnes CO2e

29060

Emissions calculation methodology

Multiplied the electricity consumed in the processing of intermediate products into finished products by emission factors. • Basic Guidelines on Accounting for Greenhouse Gas Emissions Throughout the Supply Chain (ver2.3) • Emission Intensity Database for Calculating GHG Emissions of Organizations Throughout the Supply Chain (Ver.3.1)

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

0

Please explain

Use of sold products

Evaluation status

Relevant, calculated

Metric tonnes CO2e

1105817

Emissions calculation methodology

Multiplied the estimated electricity consumption over the lifetime of sold products by an emission factor. • GHG Protocol

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

0

Please explain

End of life treatment of sold products

Evaluation status

Relevant, calculated

Metric tonnes CO2e

61375

Emissions calculation methodology

Multiplied the mass of each type of waste treated by the emission factor for each type of waste treatment. · Basic Guidelines on Accounting for Greenhouse Gas Emissions Throughout the Supply Chain (ver2.3) · Emission Intensity Database for Calculating GHG Emissions of Organizations Throughout the Supply Chain (Ver.3.1)

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

0

Please explain

Downstream leased assets

Evaluation status

Not relevant, explanation provided

Metric tonnes CO2e

<Not Applicable>

Emissions calculation methodology

<Not Applicable>

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

<Not Applicable>

Please explain

Not relevant, no downstream leased assets.

Franchises

Evaluation status

Not relevant, explanation provided

Metric tonnes CO2e

<Not Applicable>

Emissions calculation methodology

<Not Applicable>

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

<Not Applicable>

Please explain

Not relevant, no franchises.

Investments

Evaluation status

Not relevant, explanation provided

Metric tonnes CO2e

<Not Applicable>

Emissions calculation methodology

<Not Applicable>

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

<Not Applicable>

Please explain

Not relevant, no investments.

Other (upstream)

Evaluation status

Not evaluated

Metric tonnes CO2e

<Not Applicable>

Emissions calculation methodology

<Not Applicable>

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

<Not Applicable>

Please explain

Target not specified.

Other (downstream)

Evaluation status

Not evaluated

Metric tonnes CO2e

<Not Applicable>

Emissions calculation methodology

<Not Applicable>

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

<Not Applicable>

Please explain

Target not specified.

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

4.72e-7

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

470079

Metric denominator

unit total revenue

Metric denominator: Unit total

995900000000

Scope 2 figure used

Market-based

% change from previous year

1.4

Direction of change

Increased

Reason for change

We have set mid- to long-term GHG reduction targets in our value chain to realize our 2°C goal, a long-term target shared throughout the world, and Epson 25 Corporate Vision. These have been approved as Science Based Targets (SBT) by the Science Based Targets initiative. With respect to Scope 2, which accounts for a large proportion of our total CO2 emissions, we are promoting initiatives to achieve the SBT and reduce emissions through proactive investments and introduction of new systems (resources), such as upgrading to more energy-efficient facilities and expanding the use of renewable energy. In FY 2020, we experience a downturn in performance due to Covid-19 and Scope 1+2 CO2 emissions per unit increased by 1.4% (vs. FY19).

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	69554	IPCC Fifth Assessment Report (AR5 – 100 year)
CH4	1	IPCC Fifth Assessment Report (AR5 – 100 year)
N2O	1074	IPCC Fifth Assessment Report (AR5 – 100 year)
HFCs	6852	IPCC Fifth Assessment Report (AR5 – 100 year)
PFCs	26967	IPCC Fifth Assessment Report (AR5 – 100 year)
SF6	7571	IPCC Fifth Assessment Report (AR5 – 100 year)
NF3	6051	IPCC Fifth Assessment Report (AR5 – 100 year)
Other, please specify (HCFCs, HFEs)	6860	IPCC Fifth Assessment Report (AR5 – 100 year)

C7.2

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

Country/Region	Scope 1 emissions (metric tons CO2e)
Brazil	118
China	3757
Indonesia	857
Italy	220
Japan	109613
Malaysia	5858
Netherlands	73
Philippines	1714
Singapore	2008
Thailand	246
United Kingdom of Great Britain and Northern Ireland	438
United States of America	25

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)
Printing Solutions & IJS	21293
Visual Products	19982
Manufacturing Solutions	1342
Wearable Products	1555
Microdevices	58037
Rest	22719

C7.5

(C7.5) Break down your total gross global Scope 2 emissions by country/region.

Country/Region	Scope 2, location-based (metric tons CO2e)	Scope 2, market-based (metric tons CO2e)	Purchased and consumed electricity, heat, steam or cooling (MWh)	Purchased and consumed low-carbon electricity, heat, steam or cooling accounted for in Scope 2 market-based approach (MWh)
Australia	456	456	688	44
Brazil	118	89	1181	0
China	48982	65273	80062	937
France	0	0	562	562
Germany	0	0	351	351
China, Hong Kong Special Administrative Region	106	106	144	0
Indonesia	43076	28532	56582	0
Italy	156	156	1042	534
Japan	180842	179890	518964	118974
Malaysia	35190	29801	53383	0
Netherlands	0	0	194	194
Philippines	33032	2556	65426	18184
Singapore	9721	10509	25080	0
Spain	0	0	312	312
Taiwan, Greater China	162	162	291	0
Thailand	17521	25318	39665	3148
United Kingdom of Great Britain and Northern Ireland	0	0	7068	7068
United States of America	3039	2304	13525	6133

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)
Printing Solutions & IJS	114566	87970
Visual Products	43401	37474
Manufacturing Solutions	2662	2521
Wearable Products	22984	25020
Microdevices	142422	146841
Rest	46366	45326

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	2577	Decreased	0.53	Change in renewable energy consumption from the previous fiscal year (FY20-FY19). 0.53% decreased =(Changes in renewable energy consumption) / (Scope 1+2 in the previous fiscal year (485,753t)) ×100
Other emissions reduction activities	6913	Decreased	1.42	Reduce emissions through 81 measures such as renewal of support facilities and introduction of solar PV. 1.42% decreased = (Reduce emissions due to the measures) / (Scope 1+2 in the previous fiscal year (485,753t)) ×100
Divestment	0	No change	0	
Acquisitions	0	No change	0	
Mergers	0	No change	0	
Change in output	1739	Decreased	0.36	Reduced emissions due to the suspension of overseas sites due to Covid-19. 0.36% decreased =(Emission reduction due to the suspension of overseas sites) / (Scope 1+2 in the previous fiscal year (485,753t)) ×100
Change in methodology	0	No change	0	
Change in boundary	0	No change	0	
Change in physical operating conditions	3852	Decreased	0.79	Reduced emissions due to the suspension of operations at some overseas sites. 0.79% decreased =(Emission reduction due to the suspension of overseas sites) / (Scope 1+2 in the previous (485,753t) fiscal year) ×100
Unidentified	0	No change	0	
Other	593	Decreased	0.12	Reduced emissions due to other reasons such as change in emission factor. 0.12% decreased =(Emission reduction due to other reasons) / (Scope 1+2 in the previous fiscal year (485,753t)) ×100

C7.9b

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

Market-based

C8. Energy

C8.1

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

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

C8.2

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

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

C8.2a

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

	Heating value	MWh from renewable sources	MWh from non-renewable sources	Total (renewable and non-renewable) MWh
Consumption of fuel (excluding feedstock)	HHV (higher heating value)	5444	367176	372620
Consumption of purchased or acquired electricity	<Not Applicable>	150997	669088	820085
Consumption of purchased or acquired heat	<Not Applicable>	<Not Applicable>	<Not Applicable>	<Not Applicable>
Consumption of purchased or acquired steam	<Not Applicable>	0	2380	2380
Consumption of purchased or acquired cooling	<Not Applicable>	<Not Applicable>	<Not Applicable>	<Not Applicable>
Consumption of self-generated non-fuel renewable energy	<Not Applicable>	5639	<Not Applicable>	5639
Total energy consumption	<Not Applicable>	162080	1038644	1200724

C8.2b

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

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

C8.2c

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

Fuels (excluding feedstocks)

Liquefied Petroleum Gas (LPG)

Heating value

HHV (higher heating value)

Total fuel MWh consumed by the organization

38900

MWh fuel consumed for self-generation of electricity

0

MWh fuel consumed for self-generation of heat

0

MWh fuel consumed for self-generation of steam

0

MWh fuel consumed for self-generation of cooling

<Not Applicable>

MWh fuel consumed for self-cogeneration or self-trigeneration

0

Emission factor

2.98463

Unit

kg CO2e per metric ton

Emissions factor source

IPCC 2006 Guidelines for National Greenhouse Gas Inventories

Comment

unit: kg-CO2e/kg

Fuels (excluding feedstocks)

Liquefied Natural Gas (LNG)

Heating value

HHV (higher heating value)

Total fuel MWh consumed by the organization

7405

MWh fuel consumed for self-generation of electricity

0

MWh fuel consumed for self-generation of heat

0

MWh fuel consumed for self-generation of steam

0

MWh fuel consumed for self-generation of cooling

<Not Applicable>

MWh fuel consumed for self-cogeneration or self-trigeneration

0

Emission factor

2.83764

Unit

metric tons CO2e per Mg

Emissions factor source

IPCC 2006 Guidelines for National Greenhouse Gas Inventories

Comment

unit: kg-CO2e/kg

Fuels (excluding feedstocks)

Natural Gas

Heating value

HHV (higher heating value)

Total fuel MWh consumed by the organization

187476

MWh fuel consumed for self-generation of electricity

0

MWh fuel consumed for self-generation of heat

0

MWh fuel consumed for self-generation of steam

46861

MWh fuel consumed for self-generation of cooling

<Not Applicable>

MWh fuel consumed for self-cogeneration or self-trigeneration

140615

Emission factor

1.88496

Unit

kg CO2e per m3

Emissions factor source

IPCC 2006 Guidelines for National Greenhouse Gas Inventories

Comment

Fuels (excluding feedstocks)

Town Gas

Heating value

HHV (higher heating value)

Total fuel MWh consumed by the organization

42120

MWh fuel consumed for self-generation of electricity

0

MWh fuel consumed for self-generation of heat

0

MWh fuel consumed for self-generation of steam

0

MWh fuel consumed for self-generation of cooling

<Not Applicable>

MWh fuel consumed for self-cogeneration or self-trigeneration

0

Emission factor

1.88496

Unit

kg CO2e per m3

Emissions factor source

IPCC 2006 Guidelines for National Greenhouse Gas Inventories

Comment

Fuels (excluding feedstocks)

Kerosene

Heating value

HHV (higher heating value)

Total fuel MWh consumed by the organization

51550

MWh fuel consumed for self-generation of electricity

0

MWh fuel consumed for self-generation of heat

0

MWh fuel consumed for self-generation of steam

51550

MWh fuel consumed for self-generation of cooling

<Not Applicable>

MWh fuel consumed for self-cogeneration or self-trigeneration

0

Emission factor

2.51938

Unit

kg CO2e per liter

Emissions factor source

IPCC 2006 Guidelines for National Greenhouse Gas Inventories

Comment

Fuels (excluding feedstocks)

Gas Oil

Heating value

HHV (higher heating value)

Total fuel MWh consumed by the organization

7599

MWh fuel consumed for self-generation of electricity

0

MWh fuel consumed for self-generation of heat

0

MWh fuel consumed for self-generation of steam

0

MWh fuel consumed for self-generation of cooling

<Not Applicable>

MWh fuel consumed for self-cogeneration or self-trigeneration

0

Emission factor

2.67649

Unit

kg CO2e per liter

Emissions factor source

IPCC 2006 Guidelines for National Greenhouse Gas Inventories

Comment

Fuels (excluding feedstocks)

Petrol

Heating value

HHV (higher heating value)

Total fuel MWh consumed by the organization

2780

MWh fuel consumed for self-generation of electricity

0

MWh fuel consumed for self-generation of heat

0

MWh fuel consumed for self-generation of steam

0

MWh fuel consumed for self-generation of cooling

<Not Applicable>

MWh fuel consumed for self-cogeneration or self-trigeneration

0

Emission factor

2.27179

Unit

kg CO2e per liter

Emissions factor source

IPCC 2006 Guidelines for National Greenhouse Gas Inventories

Comment

Fuels (excluding feedstocks)

Other, please specify (Heavy oil)

Heating value

HHV (higher heating value)

Total fuel MWh consumed by the organization

32826

MWh fuel consumed for self-generation of electricity

0

MWh fuel consumed for self-generation of heat

0

MWh fuel consumed for self-generation of steam

32826

MWh fuel consumed for self-generation of cooling

<Not Applicable>

MWh fuel consumed for self-cogeneration or self-trigeneration

0

Emission factor

2.93934

Unit

kg CO2e per liter

Emissions factor source

IPCC 2006 Guidelines for National Greenhouse Gas Inventories

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	44123	44123	5639	5639
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

Green electricity products (e.g. green tariffs) from an energy supplier, supported by energy attribute certificates

Low-carbon technology type

Solar

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

Japan

MWh consumed accounted for at a zero emission factor

18939

Comment

Sourcing method

Green electricity products (e.g. green tariffs) from an energy supplier, supported by energy attribute certificates

Low-carbon technology type

Hydropower

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

Japan

MWh consumed accounted for at a zero emission factor

99940

Comment

Sourcing method

Green electricity products (e.g. green tariffs) from an energy supplier, supported by energy attribute certificates

Low-carbon technology type

Hydropower

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

United States of America

MWh consumed accounted for at a zero emission factor

2330

Comment

Sourcing method

Green electricity products (e.g. green tariffs) from an energy supplier, supported by energy attribute certificates

Low-carbon technology type

Wind

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

United States of America

MWh consumed accounted for at a zero emission factor

3802

Comment

Sourcing method

Green electricity products (e.g. green tariffs) from an energy supplier, supported by energy attribute certificates

Low-carbon technology type

Wind

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

United Kingdom of Great Britain and Northern Ireland

MWh consumed accounted for at a zero emission factor

6719

Comment

Sourcing method

Green electricity products (e.g. green tariffs) from an energy supplier, supported by energy attribute certificates

Low-carbon technology type

Geothermal

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

Philippines

MWh consumed accounted for at a zero emission factor

16051

Comment

C9. Additional metrics

C9.1

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

C10. Verification

C10.1

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

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

C10.1a

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

Verification or assurance cycle in place
Annual process

Status in the current reporting year
Complete

Type of verification or assurance
Limited assurance

Attach the statement
Verification Report for Epson.pdf

Page/ section reference
Page1

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 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 Report for Epson.pdf

Page/ section reference
Page1

Relevant standard
ISO14064-3

Proportion of reported emissions verified (%)
100

C10.1c

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

Scope 3 category

Scope 3: Purchased goods and services

Verification or assurance cycle in place

Annual process

Status in the current reporting year

Complete

Type of verification or assurance

Limited assurance

Attach the statement

Verification Report for Epson.pdf

Page/section reference

Page1

Relevant standard

ISO14064-3

Proportion of reported emissions verified (%)

100

Scope 3 category

Scope 3: Use of sold products

Verification or assurance cycle in place

Annual process

Status in the current reporting year

Complete

Type of verification or assurance

Limited assurance

Attach the statement

Verification Report for Epson.pdf

Page/section reference

Page1

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?

In progress

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.

Shenzhen pilot ETS

C11.1b

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

Shenzhen pilot ETS

% of Scope 1 emissions covered by the ETS

1.54

% of Scope 2 emissions covered by the ETS

0

Period start date

January 1 2020

Period end date

December 31 2020

Allowances allocated

28185

Allowances purchased

4280

Verified Scope 1 emissions in metric tons CO2e

32465

Verified Scope 2 emissions in metric tons CO2e

0

Details of ownership

Facilities we own and operate

Comment

C11.1d

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

In March 2021, we revised our Environmental Vision 2050 which describes our vision for where we want to be in 2050.

In this vision, we aim to become carbon negative in Scopes 1, 2, and 3 by 2050 by working to decarbonize and recycle resources, providing products and services that reduce our environmental impact, and developing environmental technologies.

As a strategy, we will change our emission targets for Scopes 1, 2, and 3 from a 2°C scenario to a 1.5°C scenario to promote further emission controls and decarbonization. This strategy includes regulated sites, and promoting the strategy will lead to compliance with the system (Shenzhen pilot ETS) in which we are participating. The main emission reduction measures in this strategy are the use of renewable energy, energy conservation at facilities, and the elimination of greenhouse gases. In FY2020 we built up measures to reduce emissions at regulated sites by more than 500 tons of CO2 in total, including energy conservation at facilities, facility upgrades, and production process improvements.

C11.2

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

No

C11.3

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

Yes

C11.3a

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

Objective for implementing an internal carbon price

Navigate GHG regulations
Stakeholder expectations
Change internal behavior

GHG Scope

Scope 2

Application

Epson uses internal carbon pricing as part of our basis for making investment decisions on environmental measures.

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

1800

Variance of price(s) used

We regularly review the prices we use with reference to the price of low-carbon electricity, etc. in the countries and region in which we invest.

Type of internal carbon price

Implicit price

Impact & implication

Epson uses internal carbon pricing as part of our basis for making investment decisions on environmental measures. We calculated the cost of procuring low-carbon electricity based on projected electricity usage when we installed new equipment at our Chitose Plant in FY2018, and we used the cost as a reference, together with IRR and investment-return period, in our evaluations. In FY2019, in relation to this, We finished developing environmental investment guidelines and have been officially utilizing these guidelines from FY2020.

C12. Engagement

C12.1

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

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

C12.1a

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

Type of engagement

Information collection (understanding supplier behavior)

Details of engagement

Collect climate change and carbon information at least annually from suppliers

% of suppliers by number

17

% total procurement spend (direct and indirect)

80

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

Rationale for the coverage of your engagement

As part of the Supplier Evaluation Program, Epson collects and evaluates information from key suppliers who account for 80% of our global procurement spend, using a self-assessment questionnaire (SAQ) developed independently by Epson based on the RBA's auditing standards. The SAQ includes questions concerning the environment, such as policies and data tracking of energy consumption and greenhouse gas emissions. This elected suppliers account for 17% of all suppliers. Our suppliers were chosen in consideration of the minimum number necessary for supplier engagement activities to be effective.

Impact of engagement, including measures of success

We have ranked suppliers as low, medium, or high risk based on their responses to the SAQ, and if a supplier is deemed to be high risk (65 points or less), we conduct site checks and provide support for improvement activities. The supplier SAQ survey's medium-term goal (KPI) up until FY2020 is to have no high risk suppliers. By communicating with suppliers and supporting their improvement activities, we are improving our response to environmental management year by year. Continuing on from the previous fiscal year, FY2020 we once again achieved our goal of having no high risk suppliers. Given that, as a survey of key suppliers who account for 80% of our sales, approximately half of the surveyed suppliers were being surveyed for the first time, this is an indicator that lets us measure the stability of our transactions.

Comment

We joined the RBA in April 2019 and have been collecting environmental information every year since 2018.

C12.1b

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

Type of engagement

Education/information sharing

Details of engagement

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

% of customers by number

100

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

22

Portfolio coverage (total or outstanding)

<Not Applicable>

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

Collaboration with customers We engage with our customers to address emissions from use and end of life of our products. Under the Epson 25 Corporate Vision, Epson aims to work with customers to help protect the global environment by suggesting innovative new business processes with our original products and helping customers economically develop with a smaller environmental footprint. For example, we are increasingly offering printers with high-capacity ink packs and ink tanks. Since consumables are replaced less frequently, the CO2 emissions from use and disposal are lower. We also support energy saving measures in offices through the global promotion of our energy-efficient inkjet printers for business that use Heat-Free Technology, which does not require heat to warm up the printer when it is switched on or awakes from sleep . We are in addition establishing take-back and recycling programs. Although this is a global endeavor, each program is customized to the circumstances in the specific country or region. Through this, we are collaborating with customers to ensure proper recycling of end-of-life products. We are 100% committed to working with all our prospective customers, including inkjet printer owners or all those considering a purchase. We have calculated the emissions from ink jet solutions within our scope 3 volumes.

Impact of engagement, including measures of success

In order to develop products with superior energy-saving capabilities, our inkjet printers are fully compliant with the ENERGY STAR® Ver. 3.0 revisions and meet the strict ENERGY STAR standards (OM and TEC values*). With respect to TEC, a compliance index for laser printers, we independently measure and publish the TEC for our business inkjet printers which have superior energy-saving capabilities to help offices choose competitive energy-saving equipment. In addition to providing information on our website and in catalogues, we promote our Heat-Free inkjet printers through advertisements and events to effectively promote the superiority of our laser printers to dealers and customers. In FY2020, in addition to the ongoing global promotion of Heat-Free Technology, COVID-19 motivated us to enhance activities such as online reseller training and environmental promotion training for internal sales staff in Europe, and also successfully won large-scale bids for regional associations in Germany and educational institutions in the UK. A measure of success is to reduce Scope 3 emissions to achieve SBT. We calculated the amount of energy consumed when using our products as contributing to an 130,000 ton reduction in CO2 emissions compared to when using laser printers. This is equivalent to approximately 9% of our Category 11 (Use of sold products) of Scope 3, and approximately 4% of total Scope 3 emissions. * Operation Mode (OM) refers to inkjet printers' sleep mode and the transition time to sleep mode, and laser printers and high-performance IJs (line heads) are specified as Typical Electricity Consumption (TEC) values

Type of engagement

Education/information sharing

Details of engagement

Share information about your products and relevant certification schemes (i.e. Energy STAR)

% of customers by number

21

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

62

Portfolio coverage (total or outstanding)

<Not Applicable>

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

For CO2 emissions from Information devices that run on electrical power, reduction considerations should not be limited to just time-of-operation, but the contribution from standby power should also be taken into account. This is for the revenue return rate of Europe (21% in FY2020) for a partner, given the information provided under ErP Directive Lot 26. We calculated emissions for projectors, ink-jet printers, laser printer within our scope 3 volumes as well.

Impact of engagement, including measures of success

We measure success based on our designs compliance with the ErP Directive and the number of products that provide such information, and support customers' selection of energy-saving products. Information on power consumption during networked standby or during transition times for the all target product category of ErP Directive Lot. 6 was disclosed. This information was made easily available for all European languages via our environmental website. <https://www.epson.eu/energy-consumption> By providing suitable product information to our customers on this scale, they will select environmentally friendly products, contributing to the reduction of CO2 emissions over the product's usable life.

C12.1d

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

Category 4 (upstream transportation and distribution) is an important item in our Scope 3. Therefore, collaboration with partners is essential to reduce the burden on distribution. We have set distribution cost targets for FY2025 and are promoting activities to reduce Category 4 emissions (FY2019 emissions were in the top 4 and accounted for 6%).

For example, we are promoting the reduction of CO2 emissions in distribution through joint deliveries and joint collections with other companies and round use of containers in collaboration with other companies.

Our joint cartridge collection project in Japan is an ongoing initiative, started over 10 years ago with competitors, to improve recovery rates and transportation efficiency. This project promotes further use of recycled materials and helps reduce CO2 emissions from raw materials. In FY2020 the project recovered 3.65 million cartridges, resulting in a CO2 reduction of 145 t-CO2, and steadily accumulating the effects of the project every year.

We are also collaborating with shipping companies and port companies to improve the export environment by utilizing ports near plants as a way of resolving the increased truck transportation burden caused by congestion around ports.

C12.3

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

Direct engagement with policy makers
Trade associations

C12.3a

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

Focus of legislation	Corporate position	Details of engagement	Proposed legislative solution
Cap and trade	Support	Epson Engineering (Shenzhen) Ltd. (ESL), one of the printer manufacturing factory, has been participating in Shenzhen's pilot emissions trading scheme since 2012. First, they had to decipher the many different national standards regulating CO2 emissions and understand the emissions trading scheme. Then ESL created their own greenhouse gas control standards and reporting manual.	ESL is wholly supporting the emissions trading scheme run by the Shenzhen municipal government. Our allotments for FY2020 are shown in C11.

C12.3b

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

Yes

C12.3c

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

Trade association

Japan Business Machine and Information System Industries Association (JBMIA)

Is your position on climate change consistent with theirs?

Consistent

Please explain the trade association's position

JBMIA collaborates with corporations to implement projects relating to environmental protection, product safety and standardization from a broad perspective. One of their visions is to "lead the realization of a low-carbon and recycling society ". The Environment Committee engages in activities, including collecting, analysing and utilizing environmental management information, investigating and responding to environmental laws and regulations and environmental labels for products, investigating and responding to the actual state of recovery and recycling, investigating and responding to the chemical safety of products, and taking measures to prevent global warming.

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

Our president has been appointed chairman of JBMIA for two years from 2016, and after which he became vice chairman. We will make JBMIA more global, aiming to make it an attractive association that meets the requirements of society and industry. We will conduct activities focusing on the following three themes: 1) building a foundation for leading the response to diverse environmental regulations, 2) strengthening cooperation with overseas groups to respond to environmental changes that affect global business, and 3) creating a stronger, more attractive association.

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?

When the JBMIA submits opinions on environmental regulatory processes in various countries, including Japan, Epson's Head Office environmental affairs department verifies that the climate change strategies of these nations and of the JBMIA are consistent with Epson's long-range vision. Epson's findings are incorporated into opinions via the committees of the JBMIA.

C12.4

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

Publication

In mainstream reports

Status

Complete

Attach the document

1_Annual Report 2021.pdf

Page/Section reference

・ p.16: Risks Related to Epson's Business Operations (9. Epson is vulnerable to environmental risks) ・ p.31-36 :“Environmental Vision 2050”, “Climate change initiatives and TCFD”

Content elements

Strategy
Risks & opportunities
Emissions figures
Emission targets

Comment

Publication

In mainstream reports

Status

Complete

Attach the document

2_有価証券報告書2021年3月期.pdf

Page/Section reference

・ p.19-22 : 事業の状況 (「環境ビジョン2050」「気候変動への取り組みとTCFD」) ・ p.25: 事業等のリスク ((9)環境問題について)

Content elements

Strategy
Risks & opportunities
Emissions figures
Emission targets

Comment

Publication

In mainstream reports, incorporating the TCFD recommendations

Status

Underway – previous year attached

Attach the document

3_Integrated Report 2020.pdf

Page/Section reference

・ p.26-29: Responding to TCFD Recommendations ・ p.55-56: Value Creation Infrastructure (Risk Management) ・ p.59-62:Value Creation Infrastructure (Achieve sustainability in a Circular Economy) ・ p.71: Non-Financial Highlights

Content elements

Strategy
Risks & opportunities
Emissions figures
Emission targets
Other metrics

Comment

Publication

In voluntary sustainability report

Status

Underway – previous year attached

Attach the document

4_Sustainability Report 2020.pdf

Page/Section reference

・ p.21: Key CSR Themes (FY2018 Action Items, Achievements and Results) ・ p.27: FY2019 Action Items ・ p.52-54: Environmental Vision 2050 ・ p.55-59: 2025 Goals (Reducing GHG emissions, Risks & Opportunities) ・ p.60: Responding to TCFD ・ p.65-95: Products and Services that Reduce Environmental Impacts ・ p.99-103: Climate Change/Realizing a Decarbonized Society

Content elements

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	Corporate Strategy Council	Board/Executive board

SC. Supply chain module

SC0.0

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

SC0.1

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

	Annual Revenue
Row 1	995940000000

SC0.2

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

Yes

SC0.2a

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

	ISIN country code (2 letters)	ISIN numeric identifier and single check digit (10 numbers overall)
Row 1	JP	3414750004

SC1.1

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

Requesting member

Nokia Group

Scope of emissions

Scope 1

Allocation level

Business unit (subsidiary company)

Allocation level detail

Scope 1 emission is allocated based on the sales ratio of the requesting member at the business units that are related to the member.

Emissions in metric tonnes of CO2e

6

Uncertainty (±%)

10

Major sources of emissions

Scope 1 emissions are from use of fuel for air conditioning and the use of greenhouse gases at production facilities.

Verified

No

Allocation method

Allocation based on the market value of products purchased

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

It is specified within the financial control based on the GHG protocol.

Requesting member

Nokia Group

Scope of emissions

Scope 2

Allocation level

Business unit (subsidiary company)

Allocation level detail

Scope 2 emission is allocated based on the sales ratio of the requesting member at the business units that are related to the member.

Emissions in metric tonnes of CO2e

50

Uncertainty (±%)

10

Major sources of emissions

Scope 2 emissions are electricity used to power production lines in factory, lighting in offices.

Verified

No

Allocation method

Allocation based on the market value of products purchased

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

It is specified within the financial control based on the GHG protocol.

Requesting member

NEC Corporation

Scope of emissions

Scope 1

Allocation level

Business unit (subsidiary company)

Allocation level detail

Scope 1 emission is allocated based on the sales ratio of the requesting member at the business units that are related to the member.

Emissions in metric tonnes of CO2e

81

Uncertainty (±%)

10

Major sources of emissions

Scope 1 emissions are from use of fuel for air conditioning and the use of greenhouse gases at production facilities.

Verified

No

Allocation method

Allocation based on the market value of products purchased

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

It is specified within the financial control based on the GHG protocol.

Requesting member

NEC Corporation

Scope of emissions

Scope 2

Allocation level

Business unit (subsidiary company)

Allocation level detail

Scope 2 emission is allocated based on the sales ratio of the requesting member at the business units that are related to the member.

Emissions in metric tonnes of CO2e

687

Uncertainty (±%)

10

Major sources of emissions

Scope 2 emissions are electricity used to power production lines in factory, lighting in offices.

Verified

No

Allocation method

Allocation based on the market value of products purchased

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

It is specified within the financial control based on the GHG protocol.

Requesting member

Western Digital Corp

Scope of emissions

Scope 1

Allocation level

Business unit (subsidiary company)

Allocation level detail

Scope 1 emission is allocated based on the sales ratio of the requesting member at the business units that are related to the member.

Emissions in metric tonnes of CO2e

1

Uncertainty (±%)

10

Major sources of emissions

Scope 1 emissions are from use of fuel for air conditioning and the use of greenhouse gases at production facilities.

Verified

No

Allocation method

Allocation based on the market value of products purchased

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

It is specified within the financial control based on the GHG protocol.

Requesting member

Western Digital Corp

Scope of emissions

Scope 2

Allocation level

Business unit (subsidiary company)

Allocation level detail

Scope 2 emission is allocated based on the sales ratio of the requesting member at the business units that are related to the member.

Emissions in metric tonnes of CO2e

9

Uncertainty (±%)

10

Major sources of emissions

Scope 2 emissions are electricity used to power production lines in factory, lighting in offices.

Verified

No

Allocation method

Allocation based on the market value of products purchased

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

It is specified within the financial control based on the GHG protocol.

Requesting member

Robert Bosch GmbH

Scope of emissions

Scope 1

Allocation level

Business unit (subsidiary company)

Allocation level detail

Scope 1 emission is allocated based on the sales ratio of the requesting member at the business units that are related to the member.

Emissions in metric tonnes of CO₂e

38

Uncertainty (±%)

10

Major sources of emissions

Scope 1 emissions are from use of fuel for air conditioning and the use of greenhouse gases at production facilities.

Verified

No

Allocation method

Allocation based on the market value of products purchased

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

It is specified within the financial control based on the GHG protocol

Requesting member

Robert Bosch GmbH

Scope of emissions

Scope 2

Allocation level

Business unit (subsidiary company)

Allocation level detail

Scope 2 emission is allocated based on the sales ratio of the requesting member at the business units that are related to the member.

Emissions in metric tonnes of CO₂e

320

Uncertainty (±%)

10

Major sources of emissions

Scope 2 emissions are electricity used to power production lines in factory, lighting in offices.

Verified

No

Allocation method

Allocation based on the market value of products purchased

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

It is specified within the financial control based on the GHG protocol.

Requesting member

Trimble Inc.

Scope of emissions

Scope 1

Allocation level

Business unit (subsidiary company)

Allocation level detail

Scope 1 emission is allocated based on the sales ratio of the requesting member at the business units that are related to the member.

Emissions in metric tonnes of CO₂e

34

Uncertainty (±%)

10

Major sources of emissions

Scope 1 emissions are from use of fuel for air conditioning and the use of greenhouse gases at production facilities.

Verified

No

Allocation method

Allocation based on the market value of products purchased

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

It is specified within the financial control based on the GHG protocol.

Requesting member

Trimble Inc.

Scope of emissions

Scope 2

Allocation level

Business unit (subsidiary company)

Allocation level detail

Scope 2 emission is allocated based on the sales ratio of the requesting member at the business units that are related to the member.

Emissions in metric tonnes of CO2e

292

Uncertainty (±%)

10

Major sources of emissions

Scope 2 emissions are electricity used to power production lines in factory, lighting in offices.

Verified

No

Allocation method

Allocation based on the market value of products purchased

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

It is specified within the financial control based on the GHG protocol.

Requesting member

Target Corporation

Scope of emissions

Scope 1

Allocation level

Business unit (subsidiary company)

Allocation level detail

Scope 1 emission is allocated based on the sales ratio of the requesting member at the business units that are related to the member.

Emissions in metric tonnes of CO2e

112

Uncertainty (±%)

10

Major sources of emissions

Scope 1 emissions are from use of fuel for air conditioning and the use of greenhouse gases at production facilities.

Verified

No

Allocation method

Allocation based on the market value of products purchased

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

It is specified within the financial control based on the GHG protocol.

Requesting member

Target Corporation

Scope of emissions

Scope 2

Allocation level

Business unit (subsidiary company)

Allocation level detail

Scope 2 emission is allocated based on the sales ratio of the requesting member at the business units that are related to the member.

Emissions in metric tonnes of CO2e

669

Uncertainty (±%)

10

Major sources of emissions

Scope 2 emissions are electricity used to power production lines in factory, lighting in offices.

Verified

No

Allocation method

Allocation based on the market value of products purchased

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

It is specified within the financial control based on the GHG protocol.

Requesting member

Walmart, Inc.

Scope of emissions

Scope 1

Allocation level

Business unit (subsidiary company)

Allocation level detail

Scope 1 emission is allocated based on the sales ratio of the requesting member at the business units that are related to the member.

Emissions in metric tonnes of CO2e

496

Uncertainty (±%)

10

Major sources of emissions

Scope 1 emissions are from use of fuel for air conditioning and the use of greenhouse gases at production facilities.

Verified

No

Allocation method

Allocation based on the market value of products purchased

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

It is specified within the financial control based on the GHG protocol

Requesting member

Walmart, Inc.

Scope of emissions

Scope 2

Allocation level

Business unit (subsidiary company)

Allocation level detail

Scope 2 emission is allocated based on the sales ratio of the requesting member at the business units that are related to the member.

Emissions in metric tonnes of CO2e

1764

Uncertainty (±%)

10

Major sources of emissions

Scope 2 emissions are electricity used to power production lines in factory, lighting in offices.

Verified

No

Allocation method

Allocation based on the market value of products purchased

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

It is specified within the financial control based on the GHG protocol.

Requesting member

Wal Mart de Mexico

Scope of emissions

Scope 2

Allocation level

Business unit (subsidiary company)

Allocation level detail

Scope 2 emission is allocated based on the sales ratio of the requesting member at the subsidiary company that are related to the member.

Emissions in metric tonnes of CO2e

16

Uncertainty (±%)

10

Major sources of emissions

Scope 2 emissions are electricity used to lighting and air conditioning in offices.

Verified

No

Allocation method

Allocation based on the market value of products purchased

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

It is specified within the financial control based on the GHG protocol.

SC1.2

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

The data in SC1.1 is calculated based on data using sales and GHG emissions by each division. Although sales data for each client company is not open to the public, sales for each division can be confirmed from the link below.

https://global.epson.com/IR/financial_results/2020/pdf/2020_full_presentation_eng.pdf?202104300845

SC1.3

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

Allocation challenges	Please explain what would help you overcome these challenges
We face no challenges	

SC1.4

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

No

SC1.4b

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

Our emission data can be allocated based on the sales ratio for each client company.

SC2.1

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

Requesting member

NEC Corporation

Group type of project

New product or service

Type of project

New product or service that reduces customers operational emissions

Emissions targeted

Actions to reduce customers' operational emissions (customer scope 1 & 2)

Estimated timeframe for carbon reductions to be realized

0-1 year

Estimated lifetime CO2e savings

147

Estimated payback

Cost/saving neutral

Details of proposal

If you replace your office printer from laser printer (LP-M8170) to business inkjet printer (WorkForce Pro WF-C879R), CO2 emissions will be able to reduced 147kg in the average product lifecycle per unit. This is the comparison of global warming impacts of consumables and their packaging. High-capacity ink packs not only reduce costs but contribute to reducing environmental impact by reducing resource consumption and minimizing waste. They also ease the burden of managing consumables replacement and help reduce downtime.

Requesting member

Nokia Group

Group type of project

New product or service

Type of project

New product or service that reduces customers operational emissions

Emissions targeted

Actions to reduce customers' operational emissions (customer scope 1 & 2)

Estimated timeframe for carbon reductions to be realized

0-1 year

Estimated lifetime CO2e savings

147

Estimated payback

Cost/saving neutral

Details of proposal

If you replace your office printer from laser printer (LP-M8170) to business inkjet printer (WorkForce Pro WF-C879R), CO2 emissions will be able to reduced 147kg in the average product lifecycle per unit. This is the comparison of global warming impacts of consumables and their packaging. High-capacity ink packs not only reduce costs but contribute to reducing environmental impact by reducing resource consumption and minimizing waste. They also ease the burden of managing consumables replacement and help reduce downtime.

Requesting member

Robert Bosch GmbH

Group type of project

New product or service

Type of project

New product or service that reduces customers operational emissions

Emissions targeted

Actions to reduce customers' operational emissions (customer scope 1 & 2)

Estimated timeframe for carbon reductions to be realized

0-1 year

Estimated lifetime CO2e savings

147

Estimated payback

Cost/saving neutral

Details of proposal

If you replace your office printer from laser printer (LP-M8170) to business inkjet printer (WorkForce Pro WF-C879R), CO2 emissions will be able to reduced 147kg in the average product lifecycle per unit. This is the comparison of global warming impacts of consumables and their packaging. High-capacity ink packs not only reduce costs but contribute to reducing environmental impact by reducing resource consumption and minimizing waste. They also ease the burden of managing consumables replacement and help reduce downtime.

Requesting member

Target Corporation

Group type of project

New product or service

Type of project

New product or service that reduces customers operational emissions

Emissions targeted

Actions to reduce customers' operational emissions (customer scope 1 & 2)

Estimated timeframe for carbon reductions to be realized

0-1 year

Estimated lifetime CO2e savings

147

Estimated payback

Cost/saving neutral

Details of proposal

If you replace your office printer from laser printer (LP-M8170) to business inkjet printer (WorkForce Pro WF-C879R), CO2 emissions will be able to reduced 147kg in the average product lifecycle per unit. This is the comparison of global warming impacts of consumables and their packaging. High-capacity ink packs not only reduce costs but contribute to reducing environmental impact by reducing resource consumption and minimizing waste. They also ease the burden of managing consumables replacement and help reduce downtime.

Requesting member

Trimble Inc.

Group type of project

New product or service

Type of project

New product or service that reduces customers operational emissions

Emissions targeted

Actions to reduce customers' operational emissions (customer scope 1 & 2)

Estimated timeframe for carbon reductions to be realized

0-1 year

Estimated lifetime CO2e savings

147

Estimated payback

Cost/saving neutral

Details of proposal

If you replace your office printer from laser printer (LP-M8170) to business inkjet printer (WorkForce Pro WF-C879R), CO2 emissions will be able to reduced 147kg in the average product lifecycle per unit. This is the comparison of global warming impacts of consumables and their packaging. High-capacity ink packs not only reduce costs but contribute to reducing environmental impact by reducing resource consumption and minimizing waste. They also ease the burden of managing consumables replacement

and help reduce downtime.

Requesting member

Wal Mart de Mexico

Group type of project

New product or service

Type of project

New product or service that reduces customers operational emissions

Emissions targeted

Actions to reduce customers' operational emissions (customer scope 1 & 2)

Estimated timeframe for carbon reductions to be realized

0-1 year

Estimated lifetime CO2e savings

147

Estimated payback

Cost/saving neutral

Details of proposal

If you replace your office printer from laser printer (LP-M8170) to business inkjet printer (WorkForce Pro WF-C879R), CO2 emissions will be able to reduced 147kg in the average product lifecycle per unit. This is the comparison of global warming impacts of consumables and their packaging. High-capacity ink packs not only reduce costs but contribute to reducing environmental impact by reducing resource consumption and minimizing waste. They also ease the burden of managing consumables replacement and help reduce downtime.

Requesting member

Walmart, Inc.

Group type of project

New product or service

Type of project

New product or service that reduces customers operational emissions

Emissions targeted

Actions to reduce customers' operational emissions (customer scope 1 & 2)

Estimated timeframe for carbon reductions to be realized

0-1 year

Estimated lifetime CO2e savings

147

Estimated payback

Cost/saving neutral

Details of proposal

If you replace your office printer from laser printer (LP-M8170) to business inkjet printer (WorkForce Pro WF-C879R), CO2 emissions will be able to reduced 147kg in the average product lifecycle per unit. This is the comparison of global warming impacts of consumables and their packaging. High-capacity ink packs not only reduce costs but contribute to reducing environmental impact by reducing resource consumption and minimizing waste. They also ease the burden of managing consumables replacement and help reduce downtime.

Requesting member

Western Digital Corp

Group type of project

New product or service

Type of project

New product or service that reduces customers operational emissions

Emissions targeted

Actions to reduce customers' operational emissions (customer scope 1 & 2)

Estimated timeframe for carbon reductions to be realized

0-1 year

Estimated lifetime CO2e savings

147

Estimated payback

Cost/saving neutral

Details of proposal

If you replace your office printer from laser printer (LP-M8170) to business inkjet printer (WorkForce Pro WF-C879R), CO2 emissions will be able to reduced 147kg in the average product lifecycle per unit. This is the comparison of global warming impacts of consumables and their packaging. High-capacity ink packs not only reduce costs but contribute to reducing environmental impact by reducing resource consumption and minimizing waste. They also ease the burden of managing consumables replacement and help reduce downtime.

(SC2.2) Have requests or initiatives by CDP Supply Chain members prompted your organization to take organizational-level emissions reduction initiatives?
No

SC4.1

(SC4.1) Are you providing product level data for your organization's goods or services?
Yes, I will provide data

SC4.1a

(SC4.1a) Give the overall percentage of total emissions, for all Scopes, that are covered by these products.

SC4.2a

(SC4.2a) Complete the following table for the goods/services for which you want to provide data.

Name of good/ service

WorkForce Enterprise WF-C21000

Description of good/ service

With built-in PrecisionCore lineheads, the WF-C21000 is a high-speed multi-function inkjet capable of print speeds up to 100 ppm (pages per minute). That's double the output of the typical office laser printer. Enabled by Epson's inkjet technologies, high-speed linehead inkjet multi-function printers (MFPs) take the combination of print performance and energy efficiency to the next level.

Type of product

Final

SKU (Stock Keeping Unit)

One

Total emissions in kg CO2e per unit

1800

±% change from previous figure supplied

Date of previous figure supplied

Explanation of change

Since the data for this product is released for the first time in the CDP disclosure, "±% change from previous figure supplied" and "Date of previous figure supplied" are left blank.

Methods used to estimate lifecycle emissions

ISO 14040 & 14044

SC4.2b

(SC4.2b) Complete the following table with data for lifecycle stages of your goods and/or services.

Name of good/ service

WorkForce Enterprise WF-C21000

Please select the scope

Scope 3

Please select the lifecycle stage

Material acquisition

Emissions at the lifecycle stage in kg CO2e per unit

980

Is this stage under your ownership or control?

Yes

Type of data used

Primary

Data quality

If you are verifying/assuring this product emission data, please tell us how

It is certified by the EcoLeaf environmental label. As for EcoLeaf, please see the following URL address. <https://ecoleaf-label.jp/english/>

Name of good/ service

WorkForce Enterprise WF-C21000

Please select the scope

Scope 1 & 2

Please select the lifecycle stage

Manufacturing

Emissions at the lifecycle stage in kg CO2e per unit

22

Is this stage under your ownership or control?

Yes

Type of data used

Primary

Data quality

If you are verifying/assuring this product emission data, please tell us how

It is certified by the EcoLeaf environmental label. As for EcoLeaf, please see the following URL address. <https://ecoleaf-label.jp/english/>

Name of good/ service

WorkForce Enterprise WF-C21000

Please select the scope

Scope 3

Please select the lifecycle stage

Transportation

Emissions at the lifecycle stage in kg CO2e per unit

240

Is this stage under your ownership or control?

Yes

Type of data used

Primary

Data quality

If you are verifying/assuring this product emission data, please tell us how

It is certified by the EcoLeaf environmental label. As for EcoLeaf, please see the following URL address. <https://ecoleaf-label.jp/english/>

Name of good/ service

WorkForce Enterprise WF-C21000

Please select the scope

Scope 3

Please select the lifecycle stage

Consumer Use

Emissions at the lifecycle stage in kg CO2e per unit

370

Is this stage under your ownership or control?

Yes

Type of data used

Primary

Data quality

If you are verifying/assuring this product emission data, please tell us how

It is certified by the EcoLeaf environmental label. As for EcoLeaf, please see the following URL address. <https://ecoleaf-label.jp/english/>

Name of good/ service

WorkForce Enterprise WF-C21000

Please select the scope

Scope 3

Please select the lifecycle stage

Waste

Emissions at the lifecycle stage in kg CO2e per unit

210

Is this stage under your ownership or control?

Yes

Type of data used

Primary

Data quality

If you are verifying/assuring this product emission data, please tell us how

It is certified by the EcoLeaf environmental label. As for EcoLeaf, please see the following URL address. <https://ecoleaf-label.jp/english/>

(SC4.2c) Please detail emissions reduction initiatives completed or planned for this product.

Name of good/ service	Initiative ID	Description of initiative	Completed or planned	Emission reductions in kg CO2e per unit
-----------------------	---------------	---------------------------	----------------------	---

SC4.2d

(SC4.2d) Have any of the initiatives described in SC4.2c been driven by requesting CDP Supply Chain members?

No

Submit your response

In which language are you submitting your response?

English

Please confirm how your response should be handled by CDP

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

Please confirm below

I have read and accept the applicable Terms