Micron Technology, Inc.

2024 CDP Corporate Questionnaire

Contents

C1. Introduction

(1.1) In which language are you submitting your response?

Select from:
☑ English

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

Select from:
☑ USD

(1.3) Provide an overview and introduction to your organization.

(1.3.2) Organization type

Select from:
☑ Publicly traded organization

(1.3.3) Description of organization

Micron is a global leader in memory and storage solutions. With a strong focus on our customers, technology leadership, product quality, manufacturing and operational excellence, Micron delivers a rich portfolio of high-performance DRAM, NAND and NOR memory and storage products. Every day, the innovations that our people create fuel the data economy, enabling advances in AI and 5G applications that unleash opportunities — from the data center to the intelligent edge and across client and mobile user experiences. Micron's team members live our values: collaboration, customer focus, innovation, people and tenacity. We share a common goal to pursue technology and product innovation and manufacturing excellence for our customers, partners, communities and society. And that excellence is being recognized worldwide through awards and honors for our business and innovation, our people and culture, and our sustainability and operations. For over 45 years and with more than 55,000 patents granted (and growing), Micron has delivered products that have helped transform how the world uses information to enrich life for all.

(1.4) State the end date of the year for which you are reporting data. For emissions data, indicate whether you will be providing emissions data for past reporting years.

End date of reporting year	Alignment of this reporting period with your financial reporting period	Indicate if you are providing emissions data for past reporting years
12/31/2023	*Select from:* ☑ No	*Select from:* ☑ No

(1.4.1) What is your organization's annual revenue for the reporting period?

16181000000 USD

(1.5) Provide details on your reporting boundary.

Is your reporting boundary for your CDP disclosure the same as that used in your financial statements?
Select from: ☑ Yes

(1.6) Does your organization have an ISIN code or another unique identifier (e.g., Ticker, CUSIP, etc.)?

	Does your organization use this unique identifier?	Provide your unique identifier
ISIN code - bond	*Select from:* ☑ Yes	*US5951121038*
ISIN code - equity	*Select from:* ☑ Yes	*US5951121038*
CUSIP number	*Select from:* ☑ Yes	*595112103*

	Does your organization use this unique identifier?	Provide your unique identifier
Ticker symbol	*Select from:* ☑ Yes	*MU*
SEDOL code	*Select from:* ☑ No	
LEI number	*Select from:* ☑ No	
D-U-N-S number	*Select from:* ☑ Yes	*093120871*
Other unique identifier	*Select from:* ☑ No	

(1.7) Select the countries/areas in which you operate.

Select all that apply

☑ China
☑ Japan
☑ Malaysia
☑ Singapore
☑ Taiwan, China
☑ United States of America

(1.8) Are you able to provide geolocation data for your facilities?

Are you able to provide geolocation data for your facilities?
Select from: ☑ No, this is confidential data

(1.24) Has your organization mapped its value chain?

Value chain mapped	Value chain stages covered in mapping
Select from: ☑ Yes, we have mapped or are currently in the process of mapping our value chain	*Select all that apply* ☑ Upstream value chain ☑ Downstream value chain

(1.24.1) Have you mapped where in your direct operations or elsewhere in your value chain plastics are produced, commercialized, used, and/or disposed of?

Plastics mapping	Primary reason for not mapping plastics in your value chain
Select from: ☑ No, and we do not plan to within the next two years	*Select from:* ☑ Judged to be unimportant or not relevant

C2. Identification, assessment, and management of dependencies, impacts, risks, and opportunities

(2.1) How does your organization define short-, medium-, and long-term time horizons in relation to the identification, assessment, and management of your environmental dependencies, impacts, risks, and opportunities?

Short-term

(2.1.1) From (years)

1

(2.1.3) To (years)

1

(2.1.4) How this time horizon is linked to strategic and/or financial planning

Time horizons used for enterprise risk assessment when evaluating likelihood

Medium-term

(2.1.1) From (years)

1

(2.1.3) To (years)

5

(2.1.4) How this time horizon is linked to strategic and/or financial planning

Time horizons used for enterprise risk assessment when evaluating likelihood

Long-term

(2.1.1) From (years)

5

(2.1.2) Is your long-term time horizon open ended?

Select from:
☑ No

(2.1.3) To (years)

10

(2.1.4) How this time horizon is linked to strategic and/or financial planning

Time horizons used for enterprise risk assessment when evaluating likelihood

(2.2) Does your organization have a process for identifying, assessing, and managing environmental dependencies and/or impacts?

Process in place	Dependencies and/or impacts evaluated in this process
Select from: ☑ Yes	*Select from:* ☑ Both dependencies and impacts

(2.2.1) Does your organization have a process for identifying, assessing, and managing environmental risks and/or opportunities?

Process in place	Risks and/or opportunities evaluated in this process	Is this process informed by the dependencies and/or impacts process?
Select from: ☑ Yes	*Select from:* ☑ Both risks and opportunities	*Select from:* ☑ Yes

(2.2.2) Provide details of your organization's process for identifying, assessing, and managing environmental dependencies, impacts, risks, and/or opportunities.

(2.2.2.1) Environmental issue

Select all that apply

☑ Climate change

☑ Water

(2.2.2.2) Indicate which of dependencies, impacts, risks, and opportunities are covered by the process for this environmental issue

Select all that apply

☑ Dependencies

☑ Impacts

☑ Risks

☑ Opportunities

(2.2.2.3) Value chain stages covered

Select all that apply

☑ Direct operations

☑ Upstream value chain

☑ Downstream value chain

(2.2.2.8) Frequency of assessment

Select from:

☑ Annually

(2.2.2.9) Time horizons covered

Select all that apply

☑ Short-term

☑ Medium-term

☑ Long-term

(2.2.2.10) Integration of risk management process

Select from:

☑ Integrated into multi-disciplinary organization-wide risk management process

(2.2.2.12) Tools and methods used

Commercially/publicly available tools

☑ EcoVadis

☑ WRI Aqueduct

Enterprise Risk Management

☑ Enterprise Risk Management

☑ Internal company methods

International methodologies and standards

☑ IPCC Climate Change Projections

☑ ISO 14001 Environmental Management Standard

Other

☑ External consultants

☑ Materiality assessment

(2.2.2.14) Partners and stakeholders considered

Select all that apply

☑ Customers

☑ Employees

☑ Investors

☑ Suppliers

☑ Regulators

☑ Local communities

(2.2.2.15) Has this process changed since the previous reporting year?

Select from:

☑ No

(2.2.2.16) Further details of process

Micron works to better understand and address sustainability and climate-related risks and opportunities through collaboration among our sustainability, environmental health and safety, and responsible sourcing programs, along with our various risk management organizations. Current efforts include improving operational energy and water efficiency; working toward our long-term goals and targets for energy, emissions, water and waste; and monitoring regulatory, customer, investor and other stakeholder expectations. Micron's goal is to integrate risk management practices companywide to improve decision-making in governance, strategy, objective-setting and daily operations. We do this by providing tools and knowledge, facilitating open global communication and monitoring continuously. Micron has a network of risk management teams operating across the company, including in our environment health & safety (EHS), information technology (IT), business continuity, global quality management, legal and risk advisory services groups. Our ERM organization accumulates key risk information from the executive risk committee, made up of select company executives, along with risk assessments performed by other teams. These results are regularly presented to the executive risk committee, the audit committee of the board of directors, and Micron's full board of directors for consideration. Climate-related risks and opportunities are identified and prioritized by EHS and Sustainability, considering criteria that include business continuity, impact to brand/reputation, relevance to regional operations, alignment with Micron business strategy, impact to communities, and compliance

considerations. Micron routinely monitors greenhouse gas and energy efficiency regulations and policy to understand and evaluate impacts to, and opportunities for, our business, customers, and the communities where we operate. In 2019, Micron completed a climate-related risk assessment, which included "business as usual" and 2-degree scenarios for 2020, 2030, and 2040. We conducted an initial updated assessment in 2022, and continue to review potential risks and evolving requirements. The likelihood of evolving requirements occurring and how impactful it would be without updating our compliance programs is evaluated to determine the inherent risk and then program update details, including who, what, and when are determined and tracked to closure. The response for this example includes monitoring greenhouse gas, energy efficiency and reporting regulations and policy to understand and evaluate impacts to, and opportunities for, our business, customers, and the communities where we operate. When applicability is determined, an action plan is developed and monitored through execution. Such an assessment is done annually (at a minimum; for example, reviewing sustainability reporting requirements and updated climate-related disclosure standards), and reviewed for short, medium, and potential long-term impact (for example, new ISSB S1 and S2 reporting standards have a potential short-to-medium-term impact).

(2.5) Does your organization identify and classify potential water pollutants associated with its activities that could have a detrimental impact on water ecosystems or human health?

(2.5.1) Identification and classification of potential water pollutants

Select from:

☑ Yes, we identify and classify our potential water pollutants

(2.5.2) How potential water pollutants are identified and classified

Micron maintains an ongoing improvement program to reduce uses of non-essential hazardous chemicals used in manufacturing and evaluates what can be done to mitigate environmental impacts that may stem from the use of chemicals. Micron's commitments to enhancing safety and reducing potential impact to human health and environment start with a rigorous review process of chemicals used at our facilities. This review is intended to prevent banned or restricted chemicals from reaching our operations and determines the proper handling, use, recycling or disposal of chemicals, including the identification and control of water pollutants.

(2.5.1) Describe how your organization minimizes the adverse impacts of potential water pollutants on water ecosystems or human health associated with your activities.

(2.5.1.1) Water pollutant category

Select from:

☑ Other, please specify**:** Physical and chemical parameters as applicable to our manufacturing process and as driven by local requirements

(2.5.1.2) Description of water pollutant and potential impacts

Physical and chemical parameters as applicable to our manufacturing process and as driven by local requirements

(2.5.1.3) Value chain stage

Select all that apply

☑ Direct operations

(2.5.1.4) Actions and procedures to minimize adverse impacts

Select all that apply

☑ Discharge treatment using sector-specific processes to ensure compliance with regulatory requirements

(2.5.1.5) Please explain

Each manufacturing site is equipped with a specific wastewater treatment facility that has dedicated lines for the removal of pollutants to ensure compliance with regulatory requirements.

C3. Disclosure of risks and opportunities

(3.1) Have you identified any environmental risks which have had a substantive effect on your organization in the reporting year, or are anticipated to have a substantive effect on your organization in the future?

Climate change

(3.1.1) Environmental risks identified

Select from:

☑ Yes, both in direct operations and upstream/downstream value chain

Water

(3.1.1) Environmental risks identified

Select from:

☑ Yes, both in direct operations and upstream/downstream value chain

Plastics

(3.1.1) Environmental risks identified

Select from:
☑ No

(3.1.2) Primary reason why your organization does not consider itself to have environmental risks in your direct operations and/or upstream/downstream value chain

Select from:
☑ Not an immediate strategic priority

(3.1.1) Provide details of the environmental risks identified which have had a substantive effect on your organization in the reporting year, or are anticipated to have a substantive effect on your organization in the future.

Climate change

(3.1.1.1) Risk identifier

Select from:
☑ Risk1

(3.1.1.3) Risk types and primary environmental risk driver

Policy
☑ Carbon pricing mechanisms

(3.1.1.4) Value chain stage where the risk occurs

Select from:
☑ Direct operations

(3.1.1.6) Country/area where the risk occurs

Select all that apply
☑ Singapore

(3.1.1.9) Organization-specific description of risk

Micron operates in some countries where carbon taxes and greenhouse gas regulations apply or are under discussion, specifically Singapore, where the Carbon Pricing Act tax increases to SGD 25 per tonne CO2e on a percentage of facility GHG emissions in 2025 (from SGD 5 per tonne from 2019 to 2023). This would be a cost impact on our operations and may require additional reporting, planning, and/or time from designated personnel.

(3.1.1.11) Primary financial effect of the risk

Select from:
☑ Increased direct costs

(3.1.1.12) Time horizon over which the risk is anticipated to have a substantive effect on the organization

Select all that apply
☑ Short-term

(3.1.1.13) Likelihood of the risk having an effect within the anticipated time horizon

Select from:
☑ Likely

(3.1.1.14) Magnitude

Select from:
☑ Medium-low

(3.1.1.17) Are you able to quantify the financial effect of the risk?

Select from:
☑ Yes

(3.1.1.19) Anticipated financial effect figure in the short-term – minimum (currency)

21700000

(3.1.1.20) Anticipated financial effect figure in the short-term – maximum (currency)

21700000

(3.1.1.25) Explanation of financial effect figure

This is the annual estimated financial cost, calculated by multiplying SGD 25 cost/tCO2e established by the Singapore Carbon Pricing Act by the August 2024 USD-SGD exchange rate and by 80% of Micron's 2023 annual MTCO2e scope 1 emissions in Singapore.

(3.1.1.26) Primary response to risk

Compliance, monitoring and targets

☑ Establish organization-wide targets

(3.1.1.28) Explanation of cost calculation

Micron is taking action on our greenhouse gas emissions as a company in a way that is responsive to this risk. However, these actions are taken for a range of reasons not specifically related to this risk, and are not included in the cost of response to this risk.

(3.1.1.29) Description of response

We have established corporate goals and site-level objectives for greenhouse gas reduction, and we are collaborating with suppliers to invent low-emissions etch chemistries, increase gas use efficiency and abate emissions more efficiently at the tool level. These efforts require close partnership with process tool suppliers, gas suppliers and academic researchers to invent novel chemistries and technologies

Water

(3.1.1.1) Risk identifier

Select from:

☑ Risk1

(3.1.1.3) Risk types and primary environmental risk driver

Chronic physical

☑ Rationing of municipal water supply

(3.1.1.4) Value chain stage where the risk occurs

Select from:
☑ Direct operations

(3.1.1.6) Country/area where the risk occurs

Select all that apply
☑ China

(3.1.1.7) River basin where the risk occurs

Select all that apply
☑ Huang He (Yellow River)

(3.1.1.9) Organization-specific description of risk

Water is a critical input to our manufacturing process, particularly wafer fabrication, and any reduction in quantity or quality levels would impact our manufacturing process. The Chinese region where Micron's site is located is classified as a high-risk area by the WRI Aqueduct Water Risk tool 3.0. The operation in China is less water-dependent, thus driving a low severity

(3.1.1.11) Primary financial effect of the risk

Select from:
☑ Disruption in production capacity

(3.1.1.12) Time horizon over which the risk is anticipated to have a substantive effect on the organization

Select all that apply
☑ Long-term

(3.1.1.13) Likelihood of the risk having an effect within the anticipated time horizon

Select from:
☑ More likely than not

(3.1.1.14) Magnitude

Select from:
☑ Medium-low

(3.1.1.17) Are you able to quantify the financial effect of the risk?

Select from:
☑ No

(3.1.1.26) Primary response to risk

Infrastructure, technology and spending
☑ Adopt water efficiency, water reuse, recycling and conservation practices

(3.1.1.28) Explanation of cost calculation

Micron recognizes that a reduction in water quantity or quality could impact Micron's operations, resulting in the potential for a variable financial impact.

(3.1.1.29) Description of response

Not only are clean water sources important to our communities, they are also one of the primary resources used in the manufacture of semiconductors. Micron looks proactively for opportunities to manage water consumption in manufacturing operations globally on an ongoing basis. Water is a key resource for our manufacturing process and Micron looks at water saving opportunities, starting from improving process efficiency to increasing the water recycle rate globally, particularly at Micron locations with stressed water resources.

Climate change

(3.1.1.1) Risk identifier

Select from:
☑ Risk2

(3.1.1.3) Risk types and primary environmental risk driver

Policy
☑ Carbon pricing mechanisms

(3.1.1.4) Value chain stage where the risk occurs

Select from:
☑ Direct operations

(3.1.1.6) Country/area where the risk occurs

Select all that apply
☑ Singapore

(3.1.1.9) Organization-specific description of risk

Micron operates in some countries where carbon taxes and greenhouse gas regulations apply or are under discussion, specifically Singapore, where the Carbon Pricing Act establishes that the carbon tax rate will be increased to SGD 45 per tonne in 2026 and 2027, with a goal to reach SGD 50-80 per tonne by 2030. This is likely to have a cost impact on our operations and may require additional reporting, planning, and/or time from designated personnel.

(3.1.1.11) Primary financial effect of the risk

Select from:
☑ Increased direct costs

(3.1.1.12) Time horizon over which the risk is anticipated to have a substantive effect on the organization

Select all that apply
☑ Long-term

(3.1.1.13) Likelihood of the risk having an effect within the anticipated time horizon

Select from:
☑ Very likely

(3.1.1.14) Magnitude

Select from:
☑ Medium

(3.1.1.17) Are you able to quantify the financial effect of the risk?

Select from:
☑ Yes

(3.1.1.23) Anticipated financial effect figure in the long-term – minimum (currency)

43400000

(3.1.1.24) Anticipated financial effect figure in the long-term – maximum (currency)

69500000

(3.1.1.25) Explanation of financial effect figure

This is the annual estimated financial cost, calculated by multiplying SGD 50-80 cost/tCO2e established by the Singapore Carbon Pricing Act by the August 2024 USD-SGD exchange rate and by 80% of Micron's 2023 annual MTCO2e scope 1 emissions in Singapore.

(3.1.1.26) Primary response to risk

Compliance, monitoring and targets
☑ Establish organization-wide targets

(3.1.1.28) Explanation of cost calculation

Micron is taking action on our greenhouse gas emissions as a company in a way that is responsive to this risk. However, these actions are taken for a range of reasons not specifically related to this risk, and are not included in the cost of response to this risk.

(3.1.1.29) Description of response

We have established corporate goals and site-level objectives for greenhouse gas reduction, and we are collaborating with suppliers to invent low-emissions etch chemistries, increase gas use efficiency and abate emissions more efficiently at the tool level. These efforts require close partnership with process tool suppliers, gas suppliers and academic researchers to invent novel chemistries and technologies.

Climate change

(3.1.1.1) Risk identifier

Select from:
☑ Risk3

(3.1.1.3) Risk types and primary environmental risk driver

Acute physical
☑ Drought

(3.1.1.4) Value chain stage where the risk occurs

Select from:
☑ Direct operations

(3.1.1.6) Country/area where the risk occurs

Select all that apply
☑ China
☑ Singapore
☑ Taiwan, China
☑ United States of America

(3.1.1.9) Organization-specific description of risk

Micron has manufacturing and other operations in locations subject to natural occurrences and possible climate changes, such as drought or other severe and variable weather resulting in increased costs, or disruptions to our manufacturing operations or those of our suppliers or customers. In addition, climate change may pose physical risks to our manufacturing facilities or our suppliers' facilities, including increased extreme weather events that could result in supply delays or disruptions. If production is disrupted for any reason, manufacturing yields may be adversely affected, or we may be unable to meet our customers' requirements and they may purchase products from other suppliers. This could result in a significant increase in manufacturing costs, loss of revenue, or damage to customer relationships, any of which could have a material adverse effect on our business, results of operations, or financial condition.

(3.1.1.11) Primary financial effect of the risk

Select from:
☑ Decreased revenues due to reduced production capacity

(3.1.1.12) Time horizon over which the risk is anticipated to have a substantive effect on the organization

Select all that apply

☑ Medium-term

☑ Long-term

(3.1.1.13) Likelihood of the risk having an effect within the anticipated time horizon

Select from:

☑ Likely

(3.1.1.14) Magnitude

Select from:

☑ Medium-high

(3.1.1.17) Are you able to quantify the financial effect of the risk?

Select from:

☑ No

(3.1.1.28) Explanation of cost calculation

There is potential for financial impact, the assessment of which is subject to a number of dynamic variables. Micron routinely monitors conditions and potential impacts to, and opportunities for, our business, customers, and the communities where we operate. Management activities are embedded into business-as-usual activities within the business and are therefore not additional.

(3.1.1.29) Description of response

Micron engages in local water restoration to mitigate its water risks. As an example, in Taiwan we have for many years been a steward of the Nankan and Dongmen rivers in Taoyuan, Taiwan, where in 2022 we donated 5 million USD for ammonia nitrogen removal and water quality improvement in the two rivers. We also donated nearly 10 million USD to help fund a dredging project that will restore storage capacity to the Shihmen Reservoir, the region's primary water source. In Singapore, Micron has been incorporating water-saving measures at the design stage at our new buildings and industrial processes. At the same time, we are investing resources to improve the water use efficiency at our existing factories. In Singapore, we derive 96% of our water from rain capture, onsite recycling and Singapore's NEWater supply. NEWater is a product of Singapore's centralized treatment of used water that is repurposed for non-potable use, which helps reduce the demand on reservoirs that provide potable water.

Climate change

(3.1.1.1) Risk identifier

Select from:
☑ Risk4

(3.1.1.3) Risk types and primary environmental risk driver

Market
☑ Changing customer behavior

(3.1.1.4) Value chain stage where the risk occurs

Select from:
☑ Downstream value chain

(3.1.1.9) Organization-specific description of risk

As awareness of sustainability and climate change increases, the design of new products with higher performance and reduced environmental impact (such as increased energy efficiency in memory and storage products) could be important to maintaining and increasing our role in customers' portfolio.

(3.1.1.11) Primary financial effect of the risk

Select from:
☑ Decreased revenues due to reduced demand for products and services

(3.1.1.12) Time horizon over which the risk is anticipated to have a substantive effect on the organization

Select all that apply
☑ Medium-term
☑ Long-term

(3.1.1.13) Likelihood of the risk having an effect within the anticipated time horizon

Select from:
☑ Likely

(3.1.1.14) Magnitude

Select from:
☑ Unknown

(3.1.1.17) Are you able to quantify the financial effect of the risk?

Select from:
☑ No

(3.1.1.28) Explanation of cost calculation

There is potential for financial impact, the assessment of which is subject to a number of dynamic variables. Micron routinely monitors conditions and potential impacts to, and opportunities for, our business, customers, and the communities where we operate. Management activities are embedded into business-as-usual activities within the business and are therefore not additional.

Climate change

(3.1.1.1) Risk identifier

Select from:
☑ Risk5

(3.1.1.3) Risk types and primary environmental risk driver

Market
☑ Changing customer behavior

(3.1.1.4) Value chain stage where the risk occurs

Select from:
☑ Downstream value chain

(3.1.1.9) Organization-specific description of risk

Corporate strategies for sustainability and climate change may become critical indicators for customers and investors. If this happens and Micron's corporate performance on these indicators is seen as insufficient, customers may reduce business with the company.

(3.1.1.11) Primary financial effect of the risk

Select from:

☑ Decreased revenues due to reduced demand for products and services

(3.1.1.12) Time horizon over which the risk is anticipated to have a substantive effect on the organization

Select all that apply

☑ Medium-term

☑ Long-term

(3.1.1.13) Likelihood of the risk having an effect within the anticipated time horizon

Select from:

☑ Likely

(3.1.1.14) Magnitude

Select from:

☑ Unknown

(3.1.1.17) Are you able to quantify the financial effect of the risk?

Select from:

☑ No

(3.1.1.28) Explanation of cost calculation

There is potential for financial impact, the assessment of which is subject to a number of dynamic variables. Micron routinely monitors conditions and potential impacts to, and opportunities for, our business, customers, and the communities where we operate. Management activities are embedded into business-as-usual activities within the business and are therefore not additional.

Climate change

(3.1.1.1) Risk identifier

Select from:
☑ Risk6

(3.1.1.3) Risk types and primary environmental risk driver

Acute physical
☑ Cyclone, hurricane, typhoon

(3.1.1.4) Value chain stage where the risk occurs

Select from:
☑ Direct operations

(3.1.1.6) Country/area where the risk occurs

Select all that apply
☑ Japan
☑ Singapore
☑ Taiwan, China
☑ United States of America

(3.1.1.9) Organization-specific description of risk

In the past few years intensity, frequency and variability of typhoons have been increasing, particularly in Asian countries where Micron operates. These events have caused temporary power failures, short-term business interruptions, and required contingencies to ensure water availability. Impact has been controlled and is considered manageable.

(3.1.1.11) Primary financial effect of the risk

Select from:
☑ Increased direct costs

(3.1.1.12) Time horizon over which the risk is anticipated to have a substantive effect on the organization

Select all that apply

☑ Short-term

☑ Medium-term

☑ Long-term

(3.1.1.13) Likelihood of the risk having an effect within the anticipated time horizon

Select from:

☑ Likely

(3.1.1.14) Magnitude

Select from:

☑ Unknown

(3.1.1.17) Are you able to quantify the financial effect of the risk?

Select from:

☑ No

(3.1.1.28) Explanation of cost calculation

There is potential for financial impact, the assessment of which is subject to a number of dynamic variables. Micron routinely monitors conditions and potential impacts to, and opportunities for, our business, customers, and the communities where we operate. Management activities are embedded into business-as-usual activities within the business and are therefore not additional.

Climate change

(3.1.1.1) Risk identifier

Select from:

☑ Risk7

(3.1.1.3) Risk types and primary environmental risk driver

Chronic physical

☑ Changing temperature (air, freshwater, marine water)

(3.1.1.4) Value chain stage where the risk occurs

Select from:

☑ Direct operations

(3.1.1.6) Country/area where the risk occurs

Select all that apply

☑ China
☑ India
☑ Japan
☑ Malaysia
☑ Singapore
☑ Taiwan, China
☑ United States of America

(3.1.1.9) Organization-specific description of risk

Reduced revenue from decreased production capacity (e.g. employee productivity, equipment degradation, transportation difficulties). Temperature extremes increase cooling costs which can be nonlinear with temperatures; decrease productivity by contributing to heat-related illnesses, increase equipment degradation, and negatively affect transportation infrastructure.

(3.1.1.11) Primary financial effect of the risk

Select from:

☑ Increased indirect [operating] costs

(3.1.1.12) Time horizon over which the risk is anticipated to have a substantive effect on the organization

Select all that apply

☑ Medium-term
☑ Long-term

(3.1.1.13) Likelihood of the risk having an effect within the anticipated time horizon

Select from:
☑ Very likely

(3.1.1.14) Magnitude

Select from:
☑ Unknown

(3.1.1.17) Are you able to quantify the financial effect of the risk?

Select from:
☑ No

(3.1.1.28) Explanation of cost calculation

There is potential for financial impact, the assessment of which is subject to a number of dynamic variables. Micron routinely monitors conditions and potential impacts to, and opportunities for, our business, customers, and the communities where we operate. Management activities are embedded into business-as-usual activities within the business and are therefore not additional.

(3.3) In the reporting year, was your organization subject to any fines, enforcement orders, and/or other penalties for water-related regulatory violations?

Water-related regulatory violations	Comment
Select from: ☑ No	*No significant environmental fines*

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

Select from:
☑ Yes

(3.5.1) Select the carbon pricing regulation(s) which impact your operations.

Select all that apply
☑ Singapore carbon tax

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

Singapore carbon tax

(3.5.3.1) Period start date

01/01/2023

(3.5.3.2) Period end date

12/31/2023

(3.5.3.3) % of total Scope 1 emissions covered by tax

86

(3.5.3.4) Total cost of tax paid

5455000

(3.5.3.5) Comment

Scope 1 emissions sources within the Singapore carbon tax scope and accounting/calculation methodology differ from Micron GHG inventory.

(3.5.4) What is your strategy for complying with the systems you are regulated by or anticipate being regulated by?

Affected Micron sites started an assessment since the proposed rule was issued and evaluated cost impact and possible reduction solutions. There is a dedicated multi-disciplinary team working on identifying opportunities to reduce emissions (and thus GHG emissions taxes) and establish the execution plan by prioritizing actions that have the most significant impact. Micron has been working on optimizing the use of process gases and installation of additional dedicated abatement units in our manufacturing sites in Singapore. This effort will help with reducing process emissions covered by the carbon tax.

(3.6) Have you identified any environmental opportunities which have had a substantive effect on your organization in the reporting year, or are anticipated to have a substantive effect on your organization in the future?

	Environmental opportunities identified
Climate change	*Select from:* ☑ Yes, we have identified opportunities, and some/all are being realized
Water	*Select from:* ☑ Yes, we have identified opportunities, and some/all are being realized

(3.6.1) Provide details of the environmental opportunities identified which have had a substantive effect on your organization in the reporting year, or are anticipated to have a substantive effect on your organization in the future.

Climate change

(3.6.1.1) Opportunity identifier

Select from:
☑ Opp1

(3.6.1.3) Opportunity type and primary environmental opportunity driver

Resource efficiency
☑ Increased efficiency of production and/or distribution processes

(3.6.1.4) Value chain stage where the opportunity occurs

Select from:
☑ Direct operations

(3.6.1.5) Country/area where the opportunity occurs

Select all that apply
☑ China
☑ India
☑ Japan
☑ Taiwan, China
☑ United States of America

☑ Malaysia
☑ Singapore

(3.6.1.8) Organization specific description

Micron has a year-on-year track record of implementing projects to improve the energy efficiency of our tools and systems, as well as replacing less efficient equipment with new equipment with higher energy efficiency when appropriate. Identified projects include: - Manufacturing process efficiency improvement. - HVAC optimization/upgrade to high efficiency including pressure optimization, make up air unit improvement, and exhaust balance/optimization. - Replacement of lighting from fluorescent to LED light and installation of light sensors. - Mechanical upgrades to higher efficiency motors, implementation of advanced control strategies, and optimization. - Compressed Air system optimization including leak reduction, consumption optimization. - Use of free cooling during winter season. - Replacement of old equipment with high efficiency systems, including chillers, pumps, motors, fans. - Various projects including mechanical upgrades, implementation of advanced control strategies, and optimization. - Optimization of utilities consumption (power, CDA, heat). We have taken this opportunity across our manufacturing operations to implement improvements that may have a substantive financial or strategic impact on our business.

(3.6.1.9) Primary financial effect of the opportunity

Select from:
☑ Reduced indirect (operating) costs

(3.6.1.10) Time horizon over which the opportunity is anticipated to have a substantive effect on the organization

Select all that apply
☑ Short-term
☑ Medium-term
☑ Long-term

(3.6.1.11) Likelihood of the opportunity having an effect within the anticipated time horizon

Select from:
☑ Very likely (90–100%)

(3.6.1.12) Magnitude

Select from:
☑ Medium-high

(3.6.1.15) Are you able to quantify the financial effects of the opportunity?

Select from:
☑ No

(3.6.1.26) Strategy to realize opportunity

Micron continuously identifies energy saving projects and evaluates cost/benefit to allocate necessary resources (capital expenditures)

Water

(3.6.1.1) Opportunity identifier

Select from:
☑ Opp1

(3.6.1.3) Opportunity type and primary environmental opportunity driver

Resource efficiency
☑ Reduced water usage and consumption

(3.6.1.4) Value chain stage where the opportunity occurs

Select from:
☑ Direct operations

(3.6.1.5) Country/area where the opportunity occurs

Select all that apply
☑ China
☑ Japan
☑ Malaysia
☑ Singapore
☑ Taiwan, China
☑ United States of America

(3.6.1.8) Organization specific description

Over the past few years, Micron has implemented several projects to improve water use efficiency of the manufacturing process and of the facilities supporting systems (UPW plant, cooling tower, etc.). For new construction, Micron has been incorporating water-saving measures in the design stage for new buildings and industrial processes, at the same time Micron has made significant investments to improve the water use efficiency at the existing factories. By improving water efficiency we also reduce operational costs, particularly in countries where water price is increasing.

(3.6.1.9) Primary financial effect of the opportunity

Select from:

☑ Reduced indirect (operating) costs

(3.6.1.10) Time horizon over which the opportunity is anticipated to have a substantive effect on the organization

Select all that apply

☑ Medium-term

☑ Long-term

(3.6.1.11) Likelihood of the opportunity having an effect within the anticipated time horizon

Select from:

☑ Likely (66–100%)

(3.6.1.12) Magnitude

Select from:

☑ Medium

(3.6.1.15) Are you able to quantify the financial effects of the opportunity?

Select from:

☑ No

(3.6.1.26) Strategy to realize opportunity

Micron has developed a strategy for achieving its 2030 water target that includes improvements in facility water efficiency and reuse, and partnership with our local communities to support water restoration.

Climate change

(3.6.1.1) Opportunity identifier

Select from:
☑ Opp2

(3.6.1.3) Opportunity type and primary environmental opportunity driver

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

(3.6.1.4) Value chain stage where the opportunity occurs

Select from:
☑ Downstream value chain

(3.6.1.8) Organization specific description

A significant portion of Micron's revenue comes from low-carbon (energy efficient) products, such as our low-power LPDDR5 DRAM memory product. Climate change regulations and customer interest in these products should maintain or increase the demand for these products and potentially drive innovation in the design of new products.

(3.6.1.9) Primary financial effect of the opportunity

Select from:
☑ Increased revenues resulting from increased demand for products and services

(3.6.1.10) Time horizon over which the opportunity is anticipated to have a substantive effect on the organization

Select all that apply
☑ Short-term

☑ Medium-term
☑ Long-term

(3.6.1.11) Likelihood of the opportunity having an effect within the anticipated time horizon

Select from:
☑ Likely (66–100%)

(3.6.1.12) Magnitude

Select from:
☑ High

(3.6.1.15) Are you able to quantify the financial effects of the opportunity?

Select from:
☑ No

(3.6.1.26) Strategy to realize opportunity

Micron routinely monitors market trends in terms of power consumption as well as other conditions and potential impacts to understand and evaluate impacts to, and opportunities for, our business, our customers, and the communities where we operate. These and other management activities are embedded into business-as-usual activities and are not considered an additional cost specific to this opportunity.

Climate change

(3.6.1.1) Opportunity identifier

Select from:
☑ Opp3

(3.6.1.3) Opportunity type and primary environmental opportunity driver

Markets
☑ Expansion into new markets

(3.6.1.4) Value chain stage where the opportunity occurs

Select from:
☑ Downstream value chain

(3.6.1.8) Organization specific description

The design of low power products could create an opportunity to gain new markets and customers. Improvements in our climate change strategy could be reflected in our customer's scorecards and might increase the demand for our products.

(3.6.1.9) Primary financial effect of the opportunity

Select from:
☑ Increased revenues through access to new and emerging markets

(3.6.1.10) Time horizon over which the opportunity is anticipated to have a substantive effect on the organization

Select all that apply
☑ Medium-term
☑ Long-term

(3.6.1.11) Likelihood of the opportunity having an effect within the anticipated time horizon

Select from:
☑ Likely (66–100%)

(3.6.1.12) Magnitude

Select from:
☑ Medium

(3.6.1.15) Are you able to quantify the financial effects of the opportunity?

Select from:
☑ No

(3.6.1.26) Strategy to realize opportunity

Micron routinely monitors market trends in terms of power consumption as well as other conditions and potential impacts to understand and evaluate impacts to, and opportunities for, our business, our customers, and the communities where we operate. These and other management activities are embedded into business-as-usual activities and are not considered an additional cost specific to this opportunity.

C4. Governance

(4.1) Does your organization have a board of directors or an equivalent governing body?

(4.1.1) Board of directors or equivalent governing body

Select from:
☑ Yes

(4.1.2) Frequency with which the board or equivalent meets

Select from:
☑ Quarterly

(4.1.3) Types of directors your board or equivalent is comprised of

Select all that apply
☑ Independent non-executive directors or equivalent

(4.1.4) Board diversity and inclusion policy

Select from:
☑ No

(4.1.1) Is there board-level oversight of environmental issues within your organization?

	Board-level oversight of this environmental issue
Climate change	*Select from:* ☑ Yes

	Board-level oversight of this environmental issue
Water	*Select from:* ☑ Yes

(4.1.2) Identify the positions (do not include any names) of the individuals or committees on the board with accountability for environmental issues and provide details of the board's oversight of environmental issues.

Climate change

(4.1.2.1) Positions of individuals or committees with accountability for this environmental issue

Select all that apply
☑ Chief Executive Officer (CEO)
☑ Board-level committee

(4.1.2.2) Positions' accountability for this environmental issue is outlined in policies applicable to the board

Select from:
☑ Yes

(4.1.2.3) Policies which outline the positions' accountability for this environmental issue

Select all that apply
☑ Board Terms of Reference

(4.1.2.4) Frequency with which this environmental issue is a scheduled agenda item

Select from:
☑ Scheduled agenda item in some board meetings – at least annually

(4.1.2.5) Governance mechanisms into which this environmental issue is integrated

Select all that apply
☑ Overseeing the setting of corporate targets
☑ Monitoring compliance with corporate policies and/or commitments

☑ Monitoring progress towards corporate targets
☑ Approving and/or overseeing employee incentives
☑ Monitoring the implementation of the business strategy
☑ Overseeing reporting, audit, and verification processes

(4.1.2.7) Please explain

The Governance and Sustainability Committee of Micron's Board of Directors oversees the company's development and integration of sustainability strategy and regularly reviews sustainability performance, including climate change, supported by other Board committees as needed. Micron's sustainability and climate-related strategy, action plans, performance objectives, and progress against goals and targets are presented to the Governance and Sustainability committee at least annually. The Audit Committee of the Board of Directors regularly reviews reporting processes, as well as metrics and financial reporting aspects of sustainability reporting. Risk management policies and significant risk findings are also reported to the Board's Audit Committee. The Compensation Committee established operational metrics for evaluating performance during the fiscal year, which includes performance on ESG issues including greenhouse gas emissions.

Water

(4.1.2.1) Positions of individuals or committees with accountability for this environmental issue

Select all that apply
☑ Chief Executive Officer (CEO)
☑ Board-level committee

(4.1.2.2) Positions' accountability for this environmental issue is outlined in policies applicable to the board

Select from:
☑ Yes

(4.1.2.3) Policies which outline the positions' accountability for this environmental issue

Select all that apply
☑ Board Terms of Reference

(4.1.2.4) Frequency with which this environmental issue is a scheduled agenda item

Select from:

☑ Scheduled agenda item in some board meetings – at least annually

(4.1.2.5) Governance mechanisms into which this environmental issue is integrated

Select all that apply

☑ Overseeing the setting of corporate targets
☑ Monitoring progress towards corporate targets
☑ Approving and/or overseeing employee incentives
☑ Monitoring the implementation of the business strategy
☑ Overseeing reporting, audit, and verification processes
☑ Monitoring compliance with corporate policies and/or commitments

(4.1.2.7) Please explain

The Governance and Sustainability Committee of Micron's Board of Directors oversees the company's development and integration of sustainability strategy and regularly reviews sustainability performance, including water, supported by other Board committees as needed. The Audit Committee of the Board of Directors regularly reviews reporting processes, as well as metrics and financial reporting aspects of sustainability reporting.

(4.3) Is there management-level responsibility for environmental issues within your organization?

	Management-level responsibility for this environmental issue
Climate change	*Select from:* ☑ Yes
Water	*Select from:* ☑ Yes

(4.3.1) Provide the highest senior management-level positions or committees with responsibility for environmental issues (do not include the names of individuals).

Climate change

(4.3.1.1) Position of individual or committee with responsibility

Executive level
☑ Other C-Suite Officer, please specify: Executive Vice President, Global Operations

(4.3.1.2) Environmental responsibilities of this position

Policies, commitments, and targets
☑ Setting corporate environmental policies and/or commitments
☑ Setting corporate environmental targets

Strategy and financial planning
☑ Developing a business strategy which considers environmental issues
☑ Implementing the business strategy related to environmental issues

(4.3.1.4) Reporting line

Select from:
☑ Reports to the Chief Executive Officer (CEO)

(4.3.1.5) Frequency of reporting to the board on environmental issues

Select from:
☑ Annually

(4.3.1.6) Please explain

Micron's Executive Vice President, Global Operations maintains oversight, review, and approval of the company's operational strategy related to climate change, including setting and monitoring progress against climate-related targets in corporate operations. With company subject matter experts, the Executive Vice President leads review of strategy, targets and progress with the company board of directors at least annually.

Water

(4.3.1.1) Position of individual or committee with responsibility

Executive level
☑ Other C-Suite Officer, please specify**:** Executive Vice President, Global Operations

(4.3.1.2) Environmental responsibilities of this position

Policies, commitments, and targets

☑ Setting corporate environmental policies and/or commitments

☑ Setting corporate environmental targets

Strategy and financial planning

☑ Developing a business strategy which considers environmental issues

☑ Implementing the business strategy related to environmental issues

(4.3.1.4) Reporting line

Select from:

☑ Reports to the Chief Executive Officer (CEO)

(4.3.1.5) Frequency of reporting to the board on environmental issues

Select from:

☑ Annually

(4.3.1.6) Please explain

Micron's Executive Vice President, Global Operations maintains oversight, review, and approval of the company's operational strategy related to water, including setting and monitoring progress against water-related targets in corporate operations. With company subject matter experts, the Executive Vice President leads review of strategy, targets and progress with the company board of directors at least annually.

(4.5) Do you provide monetary incentives for the management of environmental issues, including the attainment of targets?

Climate change

(4.5.1) Provision of monetary incentives related to this environmental issue

Select from:

☑ Yes

(4.5.2) % of total C-suite and board-level monetary incentives linked to the management of this environmental issue

5

(4.5.3) Please explain

Steps taken to reduce direct and indirect GHG emissions in line with Micron goals comprise 5% of short-term incentive pay for Micron executives and all other employees.

Water

(4.5.3) Please explain

Steps to achieve Micron's water targets have in the past been a portion of short-term incentive pay. While they were not in 2023, they may be included again in the future.

(4.5.1) Provide further details on the monetary incentives provided for the management of environmental issues (do not include the names of individuals).

Climate change

(4.5.1.1) Position entitled to monetary incentive

Board or executive level
☑ Corporate executive team

(4.5.1.2) Incentives

Select all that apply
☑ Bonus - % of salary

(4.5.1.3) Performance metrics

Emission reduction
☑ Implementation of an emissions reduction initiative

Engagement

☑ Increased engagement with suppliers on environmental issues

(4.5.1.4) Incentive plan the incentives are linked to

Select from:

☑ Short-Term Incentive Plan, or equivalent, only (e.g. contractual annual bonus)

(4.5.1.5) Further details of incentives

Annual incentive plan

(4.5.1.6) How the position's incentives contribute to the achievement of your environmental commitments and/or climate transition plan

Our compensation philosophy for executive officers is based on the belief that the interests of our executives should be closely aligned with our long-term performance and sustainable value creation for our shareholders. To support this philosophy, a large portion of each executive officer's target total direct compensation is "at risk" and linked to the accomplishment of specific financial and operational performance goals that we expect will lead to increased long-term value creation for our shareholders. The Compensation Committee chose these metrics and their linkage to our business and results of operations because they believe a focus on sustainability benefits our team members, communities, and other stakeholders.

(4.6) Does your organization have an environmental policy that addresses environmental issues?

Does your organization have any environmental policies?
Select from: ☑ Yes

(4.6.1) Provide details of your environmental policies.

Row 1

(4.6.1.1) Environmental issues covered

Select all that apply

☑ Climate change

(4.6.1.2) Level of coverage

Select from:
☑ Organization-wide

(4.6.1.3) Value chain stages covered

Select all that apply
☑ Direct operations
☑ Upstream value chain
☑ Downstream value chain

(4.6.1.5) Environmental policy content

Environmental commitments
☑ Commitment to comply with regulations and mandatory standards
☑ Commitment to take environmental action beyond regulatory compliance

(4.6.1.7) Public availability

Select from:
☑ Publicly available

(4.6.1.8) Attach the policy

EHS Policy.pdf

(4.10) Are you a signatory or member of any environmental collaborative frameworks or initiatives?

(4.10.1) Are you a signatory or member of any environmental collaborative frameworks or initiatives?

Select from:
☑ Yes

(4.10.2) Collaborative framework or initiative

Select all that apply

☑ Japan Climate Leaders' Partnership (JCLP)

☑ Other, please specify

(4.10.3) Describe your organization's role within each framework or initiative

Participant in JCLP. Member of SEMI's Semiconductor Climate Coalition

(4.11) In the reporting year, did your organization engage in activities that could directly or indirectly influence policy, law, or regulation that may (positively or negatively) impact the environment?

(4.11.1) External engagement activities that could directly or indirectly influence policy, law, or regulation that may impact the environment

Select all that apply

☑ Yes, we engaged directly with policy makers

☑ Yes, we engaged indirectly through, and/or provided financial or in-kind support to a trade association or other intermediary organization or individual whose activities could influence policy, law, or regulation

(4.11.2) Indicate whether your organization has a public commitment or position statement to conduct your engagement activities in line with global environmental treaties or policy goals

Select from:

☑ No, and we do not plan to have one in the next two years

(4.11.5) Indicate whether your organization is registered on a transparency register

Select from:

☑ No

(4.11.8) Describe the process your organization has in place to ensure that your external engagement activities are consistent with your environmental commitments and/or transition plan

We review policy and industry association stances internally with relevant sustainability and executive leadership as needed, taking into account consistency with our climate commitments.

(4.12) Have you published information about your organization’s response to environmental issues for this reporting year in places other than your CDP response?

Select from:
☑ Yes

(4.12.1) Provide details on the information published about your organization’s response to environmental issues for this reporting year in places other than your CDP response. Please attach the publication.

Row 1

(4.12.1.1) Publication

Select from:
☑ In mainstream reports

(4.12.1.3) Environmental issues covered in publication

Select all that apply
☑ Climate change
☑ Water

(4.12.1.4) Status of the publication

Select from:
☑ Complete

(4.12.1.5) Content elements

Select all that apply
☑ Dependencies & Impacts
☑ Risks & Opportunities
☑ Strategy
☑ Value chain engagement

(4.12.1.6) Page/section reference

10-K pages 12-13, 16-17, 27-29, 32, 36-37.

(4.12.1.7) Attach the relevant publication

Form 10-K for Micron Technology INC filed 10.06.23.pdf

(4.12.1.1) Publication

Select from:
☑ In mainstream reports

(4.12.1.3) Environmental issues covered in publication

Select all that apply
☑ Climate change
☑ Water

(4.12.1.4) Status of the publication

Select from:
☑ Complete

(4.12.1.5) Content elements

Select all that apply
☑ Governance
☑ Risks & Opportunities
☑ Strategy
☑ Value chain engagement
☑ Emission targets

(4.12.1.6) Page/section reference

Proxy pages 14-17, 22, 41-42

(4.12.1.7) Attach the relevant publication

2023 Definitive Proxy-2023-12-01-10-32.pdf

(4.12.1.1) Publication

Select from:

☑ In voluntary sustainability reports

(4.12.1.3) Environmental issues covered in publication

Select all that apply

☑ Climate change

☑ Water

☑ Biodiversity

(4.12.1.4) Status of the publication

Select from:

☑ Complete

(4.12.1.5) Content elements

Select all that apply

☑ Strategy

☑ Governance

☑ Emission targets

☑ Emissions figures

☑ Risks & Opportunities

☑ Value chain engagement

☑ Dependencies & Impacts

☑ Water accounting figures

☑ Water pollution indicators

(4.12.1.6) Page/section reference

Pages 8-11, 19-20, 23-24, 26-30, 41, 76-78

(4.12.1.7) Attach the relevant publication

2024-micron-sustainability-report.pdf

C5. Business strategy

(5.1) Does your organization use scenario analysis to identify environmental outcomes?

Climate change

(5.1.1) Use of scenario analysis

Select from:
☑ Yes

(5.1.2) Frequency of analysis

Select from:
☑ Not defined

(5.1.1) Provide details of the scenarios used in your organization's scenario analysis.

Climate change

(5.1.1.1) Scenario used

Physical climate scenarios
☑ RCP 4.5

(5.1.1.2) Scenario used SSPs used in conjunction with scenario

Select from:
☑ No SSP used

(5.1.1.3) Approach to scenario

Select from:
☑ Qualitative

(5.1.1.4) Scenario coverage

Select from:
☑ Organization-wide

(5.1.1.5) Risk types considered in scenario

Select all that apply
☑ Policy
☑ Market
☑ Liability
☑ Reputation
☑ Technology
☑ Acute physical
☑ Chronic physical

(5.1.1.6) Temperature alignment of scenario

Select from:
☑ 1.6ºC - 1.9ºC

(5.1.1.7) Reference year

2020

(5.1.1.8) Timeframes covered

Select all that apply
☑ 2030
☑ 2040
☑ 2050

(5.1.1.9) Driving forces in scenario

Direct interaction with climate
☑ On asset values, on the corporate

(5.10) Does your organization use an internal price on environmental externalities?

Use of internal pricing of environmental externalities	Primary reason for not pricing environmental externalities	Explain why your organization does not price environmental externalities
Select from: ☑ No, and we do not plan to in the next two years	*Select from:* ☑ Not an immediate strategic priority	*not an immediate strategic priority*

(5.11) Do you engage with your value chain on environmental issues?

	Engaging with this stakeholder on environmental issues	Environmental issues covered
Suppliers	*Select from:* ☑ Yes	*Select all that apply* ☑ Climate change
Customers	*Select from:* ☑ Yes	*Select all that apply* ☑ Climate change ☑ Water
Investors and shareholders	*Select from:* ☑ Yes	*Select all that apply* ☑ Climate change ☑ Water
Other value chain stakeholders	*Select from:* ☑ Yes	*Select all that apply* ☑ Climate change ☑ Water

(5.11.1) Does your organization assess and classify suppliers according to their dependencies and/or impacts on the environment?

Climate change

(5.11.1.1) Assessment of supplier dependencies and/or impacts on the environment

Select from:
☑ Yes, we assess the dependencies and/or impacts of our suppliers

(5.11.1.2) Criteria for assessing supplier dependencies and/or impacts on the environment

Select all that apply
☑ Contribution to supplier-related Scope 3 emissions

(5.11.1.3) % Tier 1 suppliers assessed

Select from:
☑ 51-75%

(5.11.1.4) Define a threshold for classifying suppliers as having substantive dependencies and/or impacts on the environment

Suppliers within 70% of annual spend

(5.11.2) Does your organization prioritize which suppliers to engage with on environmental issues?

Climate change

(5.11.2.1) Supplier engagement prioritization on this environmental issue

Select from:
☑ Yes, we prioritize which suppliers to engage with on this environmental issue

(5.11.2.2) Criteria informing which suppliers are prioritized for engagement on this environmental issue

Select all that apply
☑ Procurement spend
☑ Strategic status of suppliers

(5.11.2.4) Please explain

We define suppliers as strategic based upon annual spend and business impact

(5.11.5) Do your suppliers have to meet environmental requirements as part of your organization’s purchasing process?

Climate change

(5.11.5.1) Suppliers have to meet specific environmental requirements related to this environmental issue as part of the purchasing process

Select from:
☑ Yes, environmental requirements related to this environmental issue are included in our supplier contracts

(5.11.5.2) Policy in place for addressing supplier non-compliance

Select from:
☑ Yes, we have a policy in place for addressing non-compliance

(5.11.5.3) Comment

Micron's supplier requirements standard states that upon request from Micron, suppliers shall be required to provide environmental disclosures via the Carbon Disclosure Project (CDP) or other data platforms, and shall be required to provide life cycle assessment and/or carbon footprint information regarding the products or services they supply. It also states that suppliers providing goods or services to Micron shall satisfy applicable current legal and other industry requirements regarding human health, safety, ethics, and environmental protection. (supplier requirements standard is available here: https://www.micron.com/content/dam/micron/global/public/documents/about/sustainability/supplier-requirements-standard.pdf)

(5.11.6) Provide details of the environmental requirements that suppliers have to meet as part of your organization's purchasing process, and the compliance measures in place.

Climate change

(5.11.6.1) Environmental requirement

Select from:
☑ Environmental disclosure through a public platform

(5.11.6.2) Mechanisms for monitoring compliance with this environmental requirement

Select all that apply
☑ Supplier scorecard or rating

(5.11.7) Provide further details of your organization's supplier engagement on environmental issues.

Climate change

(5.11.7.2) Action driven by supplier engagement

Select from:
☑ Emissions reduction

(5.11.7.3) Type and details of engagement

Information collection
☑ Collect GHG emissions data at least annually from suppliers
☑ Collect targets information at least annually from suppliers

Innovation and collaboration
☑ Collaborate with suppliers on innovations to reduce environmental impacts in products and services
☑ Run a campaign to encourage innovation to reduce environmental impacts on products and services

(5.11.7.4) Upstream value chain coverage

Select all that apply
☑ Tier 1 suppliers

(5.11.7.9) Describe the engagement and explain the effect of your engagement on the selected environmental action

Micron communicates our sustainability commitments to our suppliers and follows their progress in reducing water and energy use. As we ramp up our work toward reducing the environmental footprint of our own operations, we use the RBA audit process to survey suppliers' programs for improvements in energy efficiency, reduced greenhouse gas (GHG) emissions, and reductions in the generation of solid waste, wastewater and other air emissions Beyond encouraging suppliers to disclose and address their direct carbon footprints, we are partnering with them to drive environmental improvements at Micron sites. We work closely with a group of capital equipment suppliers to find ways to advance Micron's energy, emissions, water and waste goals at our manufacturing sites. We are also collaborating with suppliers to help us address our scope 3 supply chain emissions by focusing on projects that generate reductions in their own scope 1 and 2 footprints. We require key suppliers to report details on their GHG emissions and water footprint by sending Micron their CDP submissions or providing GHG data directly.

(5.11.9) Provide details of any environmental engagement activity with other stakeholders in the value chain.

	Type of stakeholder	Type and details of engagement	Rationale for engaging these stakeholders and scope of engagement
Climate change	*Select from:* ☑ Customers	**Education/Information sharing** ☑ Share information on environmental initiatives, progress and achievements	*Focus on engaging with key customers with significant climate expectations*
Climate change	*Select from:* ☑ Investors and shareholders	**Education/Information sharing** ☑ Share information about your products and relevant certification schemes	*Focus on engaging with investors to share information about climate initiatives*

(5.13) Has your organization already implemented any mutually beneficial environmental initiatives due to CDP Supply Chain member engagement?

Environmental initiatives implemented due to CDP	Primary reason for not implementing environmental initiatives	Explain why your organization has not implemented any environmental initiatives
Select from: ☑ No, and we do not plan to within the next two years	*Select from:* ☑ Other, please specify **:**We have implemented environmental initiatives, but not due to CDP supply chain member engagement.	*We have implemented environmental initiatives, but not due to CDP supply chain member engagement.*

C6. Environmental Performance - Consolidation Approach

(6.1) Provide details on your chosen consolidation approach for the calculation of environmental performance data.

	Consolidation approach used	Provide the rationale for the choice of consolidation approach
Climate change	*Select from:* ☑ Operational control	*Reporting boundary aligned to financial report boundary*
Water	*Select from:* ☑ Operational control	*Reporting boundary aligned to financial report boundary*
Plastics	*Select from:* ☑ Operational control	*Reporting boundary aligned to financial report boundary*
Biodiversity	*Select from:* ☑ Operational control	*Reporting boundary aligned to financial report boundary*

C7. Environmental performance - Climate Change

(7.1) Is this your first year of reporting emissions data to CDP?

Select from:
☑ No

(7.1.1) Has your organization undergone any structural changes in the reporting year, or are any previous structural changes being accounted for in this disclosure of emissions data?

Has there been a structural change?
Select all that apply ☑ No

(7.1.2) Has your emissions accounting methodology, boundary, and/or reporting year definition changed in the reporting year?

(7.1.2.1) Change(s) in methodology, boundary, and/or reporting year definition?

Select all that apply

☑ Yes, a change in methodology

(7.1.2.2) Details of methodology, boundary, and/or reporting year definition change(s)

Change from IPCC2006 to 2019 refinement of IPCC2006 Chapter 6 for process emissions calculation. Change from GWP 4th Assessment to GWP 5th Assessment values

(7.1.3) Have your organization's base year emissions and past years' emissions been recalculated as a result of any changes or errors reported in 7.1.1 and/or 7.1.2?

(7.1.3.1) Base year recalculation

Select from:

☑ Yes

(7.1.3.2) Scope(s) recalculated

Select all that apply

☑ Scope 1

☑ Scope 2, market-based

(7.1.3.3) Base year emissions recalculation policy, including significance threshold

Baseline year 2020 Scope 1 was recalculated to reflect IPCC2019 methodology and GWP 5th assessment values. Scope 2 and Scope 3 emissions not impacted by the changes. Baseline 2020 Scope 1 and Scope 2 market based has also been recalculated to consider the separation of a site in 2022.

(7.1.3.4) Past years' recalculation

Select from:

☑ No

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

Select all that apply
☑ IPCC Guidelines for National Greenhouse Gas Inventories, 2006
☑ The Greenhouse Gas Protocol: A Corporate Accounting and Reporting Standard (Revised Edition)

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

(7.3.1) Scope 2, location-based

Select from:
☑ We are reporting a Scope 2, location-based figure

(7.3.2) Scope 2, market-based

Select from:
☑ We are reporting a Scope 2, market-based figure

(7.3.3) Comment

We are reporting both location-based and market based figures. Location-based calculated by using the most recent factors published by relevant agencies for each location/country. Market-based calculated using Supplier specific emission rates where applicable/available. Whenever the market-based factor is not available we considered the location-based EF for the calculation of equivalent CO2 emissions.

(7.4) Are there any sources (e.g. facilities, specific GHGs, activities, geographies, etc.) of Scope 1, Scope 2 or Scope 3 emissions that are within your selected reporting boundary which are not included in your disclosure?

Select from:
☑ Yes

(7.4.1) Provide details of the sources of Scope 1, Scope 2, or Scope 3 emissions that are within your selected reporting boundary which are not included in your disclosure.

Row 1

(7.4.1.1) Source of excluded emissions

Energy consumption from non-manufacturing sites (sales offices and design centers, in multiple countries)

(7.4.1.2) Scope(s) or Scope 3 category(ies)

Select all that apply

☑ Scope 1

☑ Scope 2 (location-based)

☑ Scope 2 (market-based)

(7.4.1.3) Relevance of Scope 1 emissions from this source

Select from:

☑ Emissions are not relevant

(7.4.1.4) Relevance of location-based Scope 2 emissions from this source

Select from:

☑ Emissions are not relevant

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

Select from:

☑ Emissions are not relevant

(7.4.1.8) Estimated percentage of total Scope 1+2 emissions this excluded source represents

1

(7.4.1.10) Explain why this source is excluded

Sales and design offices in America, Asia and Europe have multiple locations even within the same country. The most significant GHG source would be Scope 2 from purchased electricity consumption that is less than 1% of total Scope 2 emissions

(7.4.1.11) Explain how you estimated the percentage of emissions this excluded source represents

The above estimated percentage is calculated by using Scope 1 and 2 from non-manufacturing sites compared to manufacturing locations included in the reporting. Data collected for non-manufacturing sites include electricity consumption, fuel consumption and refrigerants where Micron has operational control.

(7.5) Provide your base year and base year emissions.

Scope 1

(7.5.1) Base year end

12/31/2020

(7.5.2) Base year emissions (metric tons CO2e)

3047919

(7.5.3) Methodological details

2020 set as baseline year for the absolute emissions reduction targets. 2020 Scope 1 emissions have been recalculated by using 2019 IPCC refinement for process gas emissions and by using GWP values from the 5th Assessment (it was GWP 4th Assessment)

Scope 2 (location-based)

(7.5.1) Base year end

12/31/2020

(7.5.2) Base year emissions (metric tons CO2e)

2985206

(7.5.3) Methodological details

2020 set as baseline year for the absolute emissions reduction targets. Location-based is not considered

Scope 2 (market-based)

(7.5.1) Base year end

12/31/2020

(7.5.2) Base year emissions (metric tons CO2e)

3621519

(7.5.3) Methodological details

2020 set as baseline year for the absolute emissions reduction targets.

(7.6) What were your organization’s gross global Scope 1 emissions in metric tons CO2e?

Reporting year

(7.6.1) Gross global Scope 1 emissions (metric tons CO2e)

2698572

(7.6.3) Methodological details

Micron Scope 1 emissions are related to process GHG gases (PFC, HFC, SF6, NF3, N2O), Heat Transfer Fluids, stationary fuel combustion, mobile fuel combustion (owned vehicles) and refrigerants.

(7.7) What were your organization’s gross global Scope 2 emissions in metric tons CO2e?

Reporting year

(7.7.1) Gross global Scope 2, location-based emissions (metric tons CO2e)

3936763

(7.7.2) Gross global Scope 2, market-based emissions (metric tons CO2e) (if applicable)

4138062

(7.7.4) Methodological details

Micron Scope 2 emissions include: purchased electricity, purchased steam, purchased cooling. Location-based calculated by using the most recent factors published by relevant agencies for each location/country. Market-based calculated using Supplier specific emission rates where applicable/available. Whenever the market-based factor is not available we considered the location-based EF for the calculation of equivalent CO2 emissions.

(7.8) Account for your organization’s gross global Scope 3 emissions, disclosing and explaining any exclusions.

Purchased goods and services

(7.8.1) Evaluation status

Select from:
☑ Relevant, calculated

(7.8.2) Emissions in reporting year (metric tons CO2e)

1923761

(7.8.3) Emissions calculation methodology

Select all that apply
☑ Hybrid method

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

79

(7.8.5) Please explain

Scope 3 emissions are calculated by using the annual spend CY23/supplier and emission intensity factor (tCO2e/mUSD) reported by the suppliers through CDP Supply Chain 2023. Where supplier specific data was not reported, emissions are calculated by using the relevant industry sector intensity average consolidated by CDP Supply Chain. The selected Purchased goods/services and Capital goods suppliers contribute to about 70% of total spend 2023. Percentage of data obtained from suppliers is calculated by considering emissions calculated from intensity emission factors reported by suppliers through CDP Supply Chain compared to total emissions. Contribution of service suppliers impacting Scope 2 (such as electricity providers) and suppliers contributing to other Scope 3 categories (such as business travel and transportation/distribution) are not counted under this category to prevent double counting.

Capital goods

(7.8.1) Evaluation status

Select from:
☑ Relevant, calculated

(7.8.2) Emissions in reporting year (metric tons CO2e)

644073

(7.8.3) Emissions calculation methodology

Select all that apply
☑ Hybrid method

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

79

(7.8.5) Please explain

Scope 3 emissions are calculated by using the annual spend CY23/supplier and emission intensity factor (tCO2e/mUSD) reported by the suppliers through CDP Supply Chain 2023. Where supplier specific data was not reported, emissions are calculated by using the relevant industry sector intensity average consolidated by CDP Supply Chain. The selected Purchased goods/services and Capital goods suppliers contribute to about 70% of total spend 2023. Percentage of data obtained from suppliers is calculated by considering emissions calculated from intensity emission factors reported by suppliers through CDP Supply Chain compared to total emissions.

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

(7.8.1) Evaluation status

Select from:
☑ Relevant, calculated

(7.8.2) Emissions in reporting year (metric tons CO2e)

995805

(7.8.3) Emissions calculation methodology

Select all that apply
☑ Average data method

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

0

(7.8.5) Please explain

This category includes upstream emissions from purchased fuels and electricity, including generation, transmission & distribution (T&D) and any other losses. Emissions due to fuel and energy related activities are calculated by using actual fuel and electricity consumption in CY2023 along with latest UK DEFRA emission factors 2023 for fuel and steam, while for purchased electricity WTT and T&D factors IEA (2023) Life cycle upstream emissions factors

Upstream transportation and distribution

(7.8.1) Evaluation status

Select from:
☑ Relevant, calculated

(7.8.2) Emissions in reporting year (metric tons CO2e)

130551

(7.8.3) Emissions calculation methodology

Select all that apply
☑ Hybrid method

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

47

(7.8.5) Please explain

Included upstream transportation of: purchased goods, capital goods, transfer of products/materials between Micron sites. Data source: emissions reports from suppliers where available, remaining calculated from Micron report with activity data (by carrier, transportation mode, total kg/distance). Emission factors source: US EPA for ground and ocean transportation mode (updated Feb 2024) and UK DEFRA for Freight Flights (version 2024) Emissions from outbound logistics services (reported as downstream transportation/distribution previously) have been included in this upstream category because outbound services are also paid by Micron (GHG Protocol guideline for Corporate Value Chain, page 44)

Waste generated in operations

(7.8.1) Evaluation status

Select from:
☑ Relevant, calculated

(7.8.2) Emissions in reporting year (metric tons CO2e)

3394

(7.8.3) Emissions calculation methodology

Select all that apply
☑ Average data method

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

0

(7.8.5) Please explain

Calculated CO2 emissions based on tonnage of CY2023 hazardous and non-hazardous waste sent to incineration (with and without energy recovery), recycle, landfill, composting, chemical treatment. Significant reduction of waste sent to Landfill compared to 2022, driving emissions down. Sources of emission factors: UK DEFRA Waste disposal (2023)

Business travel

(7.8.1) Evaluation status

Select from:
☑ Relevant, calculated

(7.8.2) Emissions in reporting year (metric tons CO2e)

17071

(7.8.3) Emissions calculation methodology

Select all that apply
☑ Supplier-specific method

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

100

(7.8.5) Please explain

Emissions from business travel (including flights, hotel, and car rentals) are calculated using actual data that is tracked and reported by Micron's travel agencies based on actual CY2023 business travels data. GHG emissions are then calculated by using EPA emission factors. 2023 emissions higher as a consequence of more business travels

Employee commuting

(7.8.1) Evaluation status

Select from:
☑ Relevant, calculated

(7.8.2) Emissions in reporting year (metric tons CO2e)

1535

(7.8.3) Emissions calculation methodology

Select all that apply
☑ Fuel-based method

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

100

(7.8.5) Please explain

Emissions from the commuter buses used by our employees in Singapore, Japan, Taiwan and China. Transportation vendors provided distance/fuel consumption data for all relevant locations. Emissions calculated by using fuel consumption in CY2023 as provided by the bus service providers, source of emission factors for relevant fuels EPA 2024 update.

Upstream leased assets

(7.8.1) Evaluation status

Select from:
☑ Not relevant, explanation provided

(7.8.5) Please explain

not applicable

Downstream transportation and distribution

(7.8.1) Evaluation status

Select from:
☑ Not relevant, explanation provided

(7.8.5) Please explain

In completing a Scope 3 screening and inventory, we have determined that emissions from outbound logistics services (reported as downstream transportation/distribution previously) have to be included in the "Upstream transportation and distribution" category because outbound services are paid by Micron (GHG Protocol guideline for Corporate Value Chain, page 44). Total emissions from distribution and transportation upstream and downstream are then reported in "Upstream transportation and distribution".

Processing of sold products

(7.8.1) Evaluation status

Select from:
☑ Not relevant, explanation provided

(7.8.5) Please explain

As per WBCSD/WRI Greenhouse Gas Protocol (GHGP), "If the eventual end use of sold intermediate products may be unknown, companies may disclose and justify the exclusion of downstream emissions from categories 9, 10, 11, and 12 in the report. " In completing a scope 3 screening and inventory, we have determined that our sold products should be classified as 'intermediate products' per the GHGP because Micron does not sell any finished/ final products and it is very difficult to estimate the processing, end use and end of life treatment of our products given the range of application types and products which use memory and storage. Thus, we have determined that categories 9, 10,11 and 12 are not relevant for Micron.

Use of sold products

(7.8.1) Evaluation status

Select from:
☑ Not relevant, explanation provided

(7.8.5) Please explain

As per WBCSD/WRI Greenhouse Gas Protocol (GHGP), "If the eventual end use of sold intermediate products may be unknown, companies may disclose and justify the exclusion of downstream emissions from categories 9, 10, 11, and 12 in the report. " In completing a scope 3 screening and inventory, we have determined that our sold products should be classified as 'intermediate products' per the GHGP because Micron does not sell any finished/ final products and it is very difficult to estimate the processing, end use and end of life treatment of our products given the range of application types and products which use memory and storage. Thus, we have determined that categories 9, 10,11 and 12 are not relevant for Micron.

End of life treatment of sold products

(7.8.1) Evaluation status

Select from:
☑ Not relevant, explanation provided

(7.8.5) Please explain

As per WBCSD/WRI Greenhouse Gas Protocol (GHGP), "If the eventual end use of sold intermediate products may be unknown, companies may disclose and justify the exclusion of downstream emissions from categories 9, 10, 11, and 12 in the report. " In completing a scope 3 screening and inventory, we have determined that our sold products should be classified as 'intermediate products' per the GHGP because Micron does not sell any finished/ final products and it is very difficult to estimate the processing, end use and end of life treatment of our products given the range of application types and products which use memory and storage. Thus, we have determined that categories 9, 10,11 and 12 are not relevant for Micron.

Downstream leased assets

(7.8.1) Evaluation status

Select from:
☑ Not relevant, explanation provided

(7.8.5) Please explain

Not applicable

Franchises

(7.8.1) Evaluation status

Select from:
☑ Not relevant, explanation provided

(7.8.5) Please explain

Not applicable

Investments

(7.8.1) Evaluation status

Select from:
☑ Not relevant, explanation provided

(7.8.5) Please explain

not applicable

Other (upstream)

(7.8.1) Evaluation status

Select from:
☑ Not relevant, explanation provided

(7.8.5) Please explain

not applicable

Other (downstream)

(7.8.1) Evaluation status

Select from:
☑ Not relevant, explanation provided

(7.8.5) Please explain

not applicable

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

	Verification/assurance status
Scope 1	*Select from:* ☑ Third-party verification or assurance process in place
Scope 2 (location-based or market-based)	*Select from:* ☑ Third-party verification or assurance process in place
Scope 3	*Select from:* ☑ No third-party verification or assurance

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

Row 1

(7.9.1.1) Verification or assurance cycle in place

Select from:

☑ Annual process

(7.9.1.2) Status in the current reporting year

Select from:
☑ Complete

(7.9.1.3) Type of verification or assurance

Select from:
☑ Limited assurance

(7.9.1.4) Attach the statement

2024-micron-assurance-statement.pdf

(7.9.1.5) Page/section reference

page 4

(7.9.1.6) Relevant standard

Select from:
☑ ISAE3000

(7.9.1.7) Proportion of reported emissions verified (%)

100

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

(7.9.2.1) Scope 2 approach

Select from:
☑ Scope 2 market-based

(7.9.2.2) Verification or assurance cycle in place

Select from:
☑ Annual process

(7.9.2.3) Status in the current reporting year

Select from:
☑ Complete

(7.9.2.4) Type of verification or assurance

Select from:
☑ Limited assurance

(7.9.2.5) Attach the statement

2024-micron-assurance-statement.pdf

(7.9.2.6) Page/ section reference

page 4

(7.9.2.7) Relevant standard

Select from:
☑ ISAE3000

(7.9.2.8) Proportion of reported emissions verified (%)

100

(7.9.2.1) Scope 2 approach

Select from:
☑ Scope 2 location-based

(7.9.2.2) Verification or assurance cycle in place

Select from:
☑ Annual process

(7.9.2.3) Status in the current reporting year

Select from:
☑ Complete

(7.9.2.4) Type of verification or assurance

Select from:
☑ Limited assurance

(7.9.2.5) Attach the statement

2024-micron-assurance-statement.pdf

(7.9.2.6) Page/ section reference

page 4

(7.9.2.7) Relevant standard

Select from:
☑ ISAE3000

(7.9.2.8) Proportion of reported emissions verified (%)

100

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

Select from:
☑ Decreased

(7.10.1) 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 renewable energy consumption

(7.10.1.1) Change in emissions (metric tons CO2e)

242000

(7.10.1.2) Direction of change in emissions

Select from:
☑ Decreased

(7.10.1.3) Emissions value (percentage)

3

(7.10.1.4) Please explain calculation

In CY23, Micron expanded onsite PPA in Singapore and started a new one in the US. Micron also added renewable electricity in Malaysia, the US and China. Change in emissions has been calculated by considering the power generated and consumed onsite multiplied by the grid emission factor (market based). The percentage has been calculated as ratio of emissions avoided in CY2023 compared to combined Scope 1 and 2 (market based) in calendar year 2022

Other emissions reduction activities

(7.10.1.1) Change in emissions (metric tons CO2e)

377000

(7.10.1.2) Direction of change in emissions

Select from:
☑ Decreased

(7.10.1.3) Emissions value (percentage)

5

(7.10.1.4) Please explain calculation

*CO2 emissions avoided from energy saving projects, refrigerant leak reduction, process gases abatement added in CY23. % change [(total CO2 emissions avoided in CY23)/(CY22 Scope12 market-based as reported in CDP2023)]*100*

Divestment

(7.10.1.1) Change in emissions (metric tons CO2e)

0

(7.10.1.2) Direction of change in emissions

Select from:
☑ No change

(7.10.1.3) Emissions value (percentage)

0

(7.10.1.4) Please explain calculation

not applicable

Acquisitions

(7.10.1.1) Change in emissions (metric tons CO2e)

0

(7.10.1.2) Direction of change in emissions

Select from:
☑ No change

(7.10.1.3) Emissions value (percentage)

0

(7.10.1.4) Please explain calculation

not applicable

Mergers

(7.10.1.1) Change in emissions (metric tons CO2e)

0

(7.10.1.2) Direction of change in emissions

Select from:
☑ No change

(7.10.1.3) Emissions value (percentage)

0

(7.10.1.4) Please explain calculation

not applicable

Change in output

(7.10.1.1) Change in emissions (metric tons CO2e)

99000

(7.10.1.2) Direction of change in emissions

Select from:
☑ Increased

(7.10.1.3) Emissions value (percentage)

1

(7.10.1.4) Please explain calculation

*Increased production output of manufacturing sites in CY2023. Emission Value % (CY23 Scope 1 Scope 2 emissions)/(Scope 1Scope 2 CY2022)*100. Reduction activities implemented in CY23 mitigated the potential increase, by driving absolute CY23 Scope 1 Scope2 emissions down by 10%*

Change in methodology

(7.10.1.1) Change in emissions (metric tons CO2e)

254000

(7.10.1.2) Direction of change in emissions

Select from:
☑ Decreased

(7.10.1.3) Emissions value (percentage)

3

(7.10.1.4) Please explain calculation

Adopted GWP 5th AR and changed methodology for process gases, moving to 2019 refinement of IPCC2006

Change in boundary

(7.10.1.1) Change in emissions (metric tons CO2e)

0

(7.10.1.2) Direction of change in emissions

Select from:
☑ No change

(7.10.1.3) Emissions value (percentage)

0

(7.10.1.4) Please explain calculation

not applicable

Change in physical operating conditions

(7.10.1.1) Change in emissions (metric tons CO2e)

0

(7.10.1.2) Direction of change in emissions

Select from:
☑ No change

(7.10.1.3) Emissions value (percentage)

0

(7.10.1.4) Please explain calculation

not applicable

Unidentified

(7.10.1.1) Change in emissions (metric tons CO2e)

0

(7.10.1.2) Direction of change in emissions

Select from:
☑ No change

(7.10.1.3) Emissions value (percentage)

0

(7.10.1.4) Please explain calculation

not applicable

Other

(7.10.1.1) Change in emissions (metric tons CO2e)

0

(7.10.1.2) Direction of change in emissions

Select from:
☑ No change

(7.10.1.3) Emissions value (percentage)

0

(7.10.1.4) Please explain calculation

Not applicable

(7.10.2) Are your emissions performance calculations in 7.10 and 7.10.1 based on a location-based Scope 2 emissions figure or a market-based Scope 2 emissions figure?

Select from:
☑ Market-based

(7.12) Are carbon dioxide emissions from biogenic carbon relevant to your organization?

Select from:
☑ No

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

Select from:
☑ Yes

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

Row 1

(7.15.1.1) Greenhouse gas

Select from:
☑ CO2

(7.15.1.2) Scope 1 emissions (metric tons of CO2e)

497197

(7.15.1.3) GWP Reference

Select from:
☑ IPCC Fifth Assessment Report (AR5 – 100 year)

Row 2

(7.15.1.1) Greenhouse gas

Select from:
☑ CH4

(7.15.1.2) Scope 1 emissions (metric tons of CO2e)

247

(7.15.1.3) GWP Reference

Select from:
☑ IPCC Fifth Assessment Report (AR5 – 100 year)

Row 3

(7.15.1.1) Greenhouse gas

Select from:
☑ N2O

(7.15.1.2) Scope 1 emissions (metric tons of CO2e)

151839

(7.15.1.3) GWP Reference

Select from:
☑ IPCC Fifth Assessment Report (AR5 – 100 year)

Row 4

(7.15.1.1) Greenhouse gas

Select from:
☑ HFCs

(7.15.1.2) Scope 1 emissions (metric tons of CO2e)

182984

(7.15.1.3) GWP Reference

Select from:
☑ IPCC Fifth Assessment Report (AR5 – 100 year)

Row 5

(7.15.1.1) Greenhouse gas

Select from:

☑ PFCs

(7.15.1.2) Scope 1 emissions (metric tons of CO2e)

1177283

(7.15.1.3) GWP Reference

Select from:
☑ IPCC Fifth Assessment Report (AR5 – 100 year)

Row 6

(7.15.1.1) Greenhouse gas

Select from:
☑ SF6

(7.15.1.2) Scope 1 emissions (metric tons of CO2e)

70745

(7.15.1.3) GWP Reference

Select from:
☑ IPCC Fifth Assessment Report (AR5 – 100 year)

Row 7

(7.15.1.1) Greenhouse gas

Select from:
☑ NF3

(7.15.1.2) Scope 1 emissions (metric tons of CO2e)

304699

(7.15.1.3) GWP Reference

Select from:
☑ IPCC Fifth Assessment Report (AR5 – 100 year)

Row 8

(7.15.1.1) Greenhouse gas

Select from:
☑ Other, please specify**: Heat** Transfer Fluid

(7.15.1.2) Scope 1 emissions (metric tons of CO2e)

313578

(7.15.1.3) GWP Reference

Select from:
☑ IPCC Fifth Assessment Report (AR5 – 100 year)

(7.16) Break down your total gross global Scope 1 and 2 emissions by country/area.

	Scope 1 emissions (metric tons CO2e)	Scope 2, location-based (metric tons CO2e)	Scope 2, market-based (metric tons CO2e)
China	*13589*	*143088*	*107695*
Japan	*607951*	*445233*	*545868*
Malaysia	*12961*	*165422*	*0*
Singapore	*1428473*	*1268762*	*1267538*
Taiwan, China	*382928*	*1619153*	*1874428*
United States of America	*252670*	*295105*	*342532*

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

Select all that apply
☑ By activity

(7.17.3) Break down your total gross global Scope 1 emissions by business activity.

Activity	Scope 1 emissions (metric tons CO2e)
Manufacturing process	*1871473*
Combustion	*497684*
Refrigeration/Cooling	*329415*

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

Select all that apply
☑ By business division

(7.20.1) 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)
Wafer fabrication	*3350397*	*3752510*
Assembly and Test	*586366*	*385552*

(7.22) Break down your gross Scope 1 and Scope 2 emissions between your consolidated accounting group and other entities included in your response.

Consolidated accounting group

(7.22.1) Scope 1 emissions (metric tons CO2e)
2698572

(7.22.2) Scope 2, location-based emissions (metric tons CO2e)

3936763

(7.22.3) Scope 2, market-based emissions (metric tons CO2e)

4138062

(7.22.4) Please explain

Reported emissions are aligned to annual financial statement.

All other entities

(7.22.1) Scope 1 emissions (metric tons CO2e)

0

(7.22.2) Scope 2, location-based emissions (metric tons CO2e)

0

(7.22.3) Scope 2, market-based emissions (metric tons CO2e)

0

(7.22.4) Please explain

Not applicable

(7.23) Is your organization able to break down your emissions data for any of the subsidiaries included in your CDP response?

Select from:
☑ Not relevant as we do not have any subsidiaries

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

(7.27.1) Allocation challenges

Select from:
☑ Diversity of product lines makes accurately accounting for each product/product line cost ineffective

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

Select from:
☑ More than 0% but less than or equal to 5%

(7.30) 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)	*Select from:* ☑ Yes
Consumption of purchased or acquired electricity	*Select from:* ☑ Yes
Consumption of purchased or acquired heat	*Select from:* ☑ No
Consumption of purchased or acquired steam	*Select from:* ☑ Yes
Consumption of purchased or acquired cooling	*Select from:* ☑ Yes
Generation of electricity, heat, steam, or cooling	*Select from:* ☑ Yes

(7.30.1) Report your organization’s energy consumption totals (excluding feedstocks) in MWh.

Consumption of fuel (excluding feedstock)

(7.30.1.1) Heating value

Select from:
☑ LHV (lower heating value)

(7.30.1.2) MWh from renewable sources

0

(7.30.1.3) MWh from non-renewable sources

2417187

(7.30.1.4) Total (renewable and non-renewable) MWh

2417187

Consumption of purchased or acquired electricity

(7.30.1.1) Heating value

Select from:
☑ Unable to confirm heating value

(7.30.1.2) MWh from renewable sources

393560

(7.30.1.3) MWh from non-renewable sources

8391233

(7.30.1.4) Total (renewable and non-renewable) MWh

8784794

Consumption of purchased or acquired steam

(7.30.1.1) Heating value

Select from:
☑ Unable to confirm heating value

(7.30.1.2) MWh from renewable sources

0

(7.30.1.3) MWh from non-renewable sources

78386

(7.30.1.4) Total (renewable and non-renewable) MWh

78386

Consumption of purchased or acquired cooling

(7.30.1.1) Heating value

Select from:
☑ Unable to confirm heating value

(7.30.1.2) MWh from renewable sources

0

(7.30.1.3) MWh from non-renewable sources

108249

(7.30.1.4) Total (renewable and non-renewable) MWh

108249

Consumption of self-generated non-fuel renewable energy

(7.30.1.1) Heating value

Select from:
☑ Unable to confirm heating value

(7.30.1.2) MWh from renewable sources

245

(7.30.1.4) Total (renewable and non-renewable) MWh

245

Total energy consumption

(7.30.1.1) Heating value

Select from:
☑ Unable to confirm heating value

(7.30.1.2) MWh from renewable sources

393805

(7.30.1.3) MWh from non-renewable sources

10995055

(7.30.1.4) Total (renewable and non-renewable) MWh

11388860

(7.30.6) 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	*Select from:* ☑ No
Consumption of fuel for the generation of heat	*Select from:* ☑ Yes
Consumption of fuel for the generation of steam	*Select from:* ☑ Yes
Consumption of fuel for the generation of cooling	*Select from:* ☑ No
Consumption of fuel for co-generation or tri-generation	*Select from:* ☑ Yes

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

Sustainable biomass

(7.30.7.1) Heating value

Select from:
☑ Unable to confirm heating value

(7.30.7.2) Total fuel MWh consumed by the organization

0

(7.30.7.4) MWh fuel consumed for self-generation of heat

0

(7.30.7.5) MWh fuel consumed for self-generation of steam

0

(7.30.7.6) MWh fuel consumed for self-generation of cooling

0

(7.30.7.7) MWh fuel consumed for self- cogeneration or self-trigeneration

0

(7.30.7.8) Comment

not applicable

Other biomass

(7.30.7.1) Heating value

Select from:
☑ Unable to confirm heating value

(7.30.7.2) Total fuel MWh consumed by the organization

0

(7.30.7.4) MWh fuel consumed for self-generation of heat

0

(7.30.7.5) MWh fuel consumed for self-generation of steam

0

(7.30.7.6) MWh fuel consumed for self-generation of cooling

0

(7.30.7.7) MWh fuel consumed for self- cogeneration or self-trigeneration

0

(7.30.7.8) Comment

not applicable

Other renewable fuels (e.g. renewable hydrogen)

(7.30.7.1) Heating value

Select from:
☑ Unable to confirm heating value

(7.30.7.2) Total fuel MWh consumed by the organization

0

(7.30.7.4) MWh fuel consumed for self-generation of heat

0

(7.30.7.5) MWh fuel consumed for self-generation of steam

0

(7.30.7.6) MWh fuel consumed for self-generation of cooling

0

(7.30.7.7) MWh fuel consumed for self- cogeneration or self-trigeneration

0

(7.30.7.8) Comment

not applicable

Coal

(7.30.7.1) Heating value

Select from:
☑ Unable to confirm heating value

(7.30.7.2) Total fuel MWh consumed by the organization

0

(7.30.7.4) MWh fuel consumed for self-generation of heat

0

(7.30.7.5) MWh fuel consumed for self-generation of steam

0

(7.30.7.6) MWh fuel consumed for self-generation of cooling

0

(7.30.7.7) MWh fuel consumed for self- cogeneration or self-trigeneration

0

(7.30.7.8) Comment

not applicable

Oil

(7.30.7.1) Heating value

Select from:
☑ Unable to confirm heating value

(7.30.7.2) Total fuel MWh consumed by the organization

0

(7.30.7.4) MWh fuel consumed for self-generation of heat

0

(7.30.7.5) MWh fuel consumed for self-generation of steam

0

(7.30.7.6) MWh fuel consumed for self-generation of cooling

0

(7.30.7.7) MWh fuel consumed for self- cogeneration or self-trigeneration

0

(7.30.7.8) Comment

not applicable

Gas

(7.30.7.1) Heating value

Select from:
☑ LHV

(7.30.7.2) Total fuel MWh consumed by the organization

2395381

(7.30.7.4) MWh fuel consumed for self-generation of heat

1075311

(7.30.7.5) MWh fuel consumed for self-generation of steam

196125

(7.30.7.6) MWh fuel consumed for self-generation of cooling

0

(7.30.7.7) MWh fuel consumed for self- cogeneration or self-trigeneration

1123945

(7.30.7.8) Comment

Natural gas consumption

Other non-renewable fuels (e.g. non-renewable hydrogen)

(7.30.7.1) Heating value

Select from:
☑ LHV

(7.30.7.2) Total fuel MWh consumed by the organization

21806

(7.30.7.4) MWh fuel consumed for self-generation of heat

12403

(7.30.7.5) MWh fuel consumed for self-generation of steam

360

(7.30.7.6) MWh fuel consumed for self-generation of cooling

0

(7.30.7.7) MWh fuel consumed for self- cogeneration or self-trigeneration

9043

(7.30.7.8) Comment

Other non-renewable fuels (diesel, LPG)

Total fuel

(7.30.7.1) Heating value

Select from:
☑ Unable to confirm heating value

(7.30.7.2) Total fuel MWh consumed by the organization

2417187

(7.30.7.4) MWh fuel consumed for self-generation of heat

1087714

(7.30.7.5) MWh fuel consumed for self-generation of steam

196485

(7.30.7.6) MWh fuel consumed for self-generation of cooling

0

(7.30.7.7) MWh fuel consumed for self- cogeneration or self-trigeneration

1132988

(7.30.7.8) Comment

Total MWh

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

Electricity

(7.30.9.1) Total Gross generation (MWh)

539339

(7.30.9.2) Generation that is consumed by the organization (MWh)

539339

(7.30.9.3) Gross generation from renewable sources (MWh)

245

(7.30.9.4) Generation from renewable sources that is consumed by the organization (MWh)

245

Heat

(7.30.9.1) Total Gross generation (MWh)

0

(7.30.9.2) Generation that is consumed by the organization (MWh)

0

(7.30.9.3) Gross generation from renewable sources (MWh)

0

(7.30.9.4) Generation from renewable sources that is consumed by the organization (MWh)

0

Steam

(7.30.9.1) Total Gross generation (MWh)

0

(7.30.9.2) Generation that is consumed by the organization (MWh)

0

(7.30.9.3) Gross generation from renewable sources (MWh)

0

(7.30.9.4) Generation from renewable sources that is consumed by the organization (MWh)

0

Cooling

(7.30.9.1) Total Gross generation (MWh)

0

(7.30.9.2) Generation that is consumed by the organization (MWh)

0

(7.30.9.3) Gross generation from renewable sources (MWh)

0

(7.30.9.4) Generation from renewable sources that is consumed by the organization (MWh)

0

(7.30.14) Provide details on the electricity, heat, steam, and/or cooling amounts that were accounted for at a zero or near-zero emission factor in the market-based Scope 2 figure reported in 7.7.

Row 1

(7.30.14.1) Country/area

Select from:
☑ Malaysia

(7.30.14.2) Sourcing method

Select from:
☑ Retail supply contract with an electricity supplier (retail green electricity)

(7.30.14.3) Energy carrier

Select from:
☑ Electricity

(7.30.14.4) Low-carbon technology type

Select from:
☑ Renewable energy mix, please specify**:** Hydropower and solar

(7.30.14.5) Low-carbon energy consumed via selected sourcing method in the reporting year (MWh)

175858

(7.30.14.6) Tracking instrument used

Select from:
☑ I-REC

(7.30.14.7) Country/area of origin (generation) of the low-carbon energy or energy attribute

Select from:

☑ Malaysia

(7.30.14.8) Are you able to report the commissioning or re-powering year of the energy generation facility?

Select from:
☑ Yes

(7.30.14.9) Commissioning year of the energy generation facility (e.g. date of first commercial operation or repowering)

1977

(7.30.14.10) Comment

Commissioning of generating facilities varies from 1977 to 2022 (entered the year of the oldest project in the above field) Solar: 2018, 2019, 2020, 2022 Hydro: 1977, 2009

Row 2

(7.30.14.1) Country/area

Select from:
☑ Malaysia

(7.30.14.2) Sourcing method

Select from:
☑ Unbundled procurement of energy attribute certificates (EACs)

(7.30.14.3) Energy carrier

Select from:
☑ Electricity

(7.30.14.4) Low-carbon technology type

Select from:
☑ Solar

(7.30.14.5) Low-carbon energy consumed via selected sourcing method in the reporting year (MWh)

27989

(7.30.14.6) Tracking instrument used

Select from:
☑ I-REC

(7.30.14.7) Country/area of origin (generation) of the low-carbon energy or energy attribute

Select from:
☑ Malaysia

(7.30.14.8) Are you able to report the commissioning or re-powering year of the energy generation facility?

Select from:
☑ Yes

(7.30.14.9) Commissioning year of the energy generation facility (e.g. date of first commercial operation or repowering)

2018

(7.30.14.10) Comment

Commissioning of generating facilities (solar) varies from 2018 to 2023 (entered the year of the oldest project in the above field)

Row 3

(7.30.14.1) Country/area

Select from:
☑ Malaysia

(7.30.14.2) Sourcing method

Select from:

☑ Unbundled procurement of energy attribute certificates (EACs)

(7.30.14.3) Energy carrier

Select from:
☑ Electricity

(7.30.14.4) Low-carbon technology type

Select from:
☑ Solar

(7.30.14.5) Low-carbon energy consumed via selected sourcing method in the reporting year (MWh)

14386

(7.30.14.6) Tracking instrument used

Select from:
☑ TIGR

(7.30.14.7) Country/area of origin (generation) of the low-carbon energy or energy attribute

Select from:
☑ Malaysia

(7.30.14.8) Are you able to report the commissioning or re-powering year of the energy generation facility?

Select from:
☑ Yes

(7.30.14.9) Commissioning year of the energy generation facility (e.g. date of first commercial operation or repowering)

2019

(7.30.14.10) Comment

Commissioning of generating facilities (solar) varies from 2019 to 2023 (entered the year of the oldest project in the above field)

Row 4

(7.30.14.1) Country/area

Select from:
☑ Singapore

(7.30.14.2) Sourcing method

Select from:
☑ Purchase from an on-site installation owned by a third party (on-site PPA)

(7.30.14.3) Energy carrier

Select from:
☑ Electricity

(7.30.14.4) Low-carbon technology type

Select from:
☑ Solar

(7.30.14.5) Low-carbon energy consumed via selected sourcing method in the reporting year (MWh)

2937

(7.30.14.6) Tracking instrument used

Select from:
☑ TIGR

(7.30.14.7) Country/area of origin (generation) of the low-carbon energy or energy attribute

Select from:
☑ Singapore

(7.30.14.8) Are you able to report the commissioning or re-powering year of the energy generation facility?

Select from:
☑ Yes

(7.30.14.9) Commissioning year of the energy generation facility (e.g. date of first commercial operation or repowering)

2021

(7.30.14.10) Comment

Onsite PPA installation commissioned from 2021 to 2023

Row 5

(7.30.14.1) Country/area

Select from:
☑ United States of America

(7.30.14.2) Sourcing method

Select from:
☑ Project-specific contract with an electricity supplier

(7.30.14.3) Energy carrier

Select from:
☑ Electricity

(7.30.14.4) Low-carbon technology type

Select from:
☑ Solar

(7.30.14.5) Low-carbon energy consumed via selected sourcing method in the reporting year (MWh)

58235

(7.30.14.6) Tracking instrument used

Select from:
☑ US-REC

(7.30.14.7) Country/area of origin (generation) of the low-carbon energy or energy attribute

Select from:
☑ United States of America

(7.30.14.8) Are you able to report the commissioning or re-powering year of the energy generation facility?

Select from:
☑ Yes

(7.30.14.9) Commissioning year of the energy generation facility (e.g. date of first commercial operation or repowering)

2023

(7.30.14.10) Comment

Commissioning of generating facility (solar) - 2023

Row 6

(7.30.14.1) Country/area

Select from:
☑ United States of America

(7.30.14.2) Sourcing method

Select from:
☑ Unbundled procurement of energy attribute certificates (EACs)

(7.30.14.3) Energy carrier

Select from:
☑ Electricity

(7.30.14.4) Low-carbon technology type

Select from:
☑ Solar

(7.30.14.5) Low-carbon energy consumed via selected sourcing method in the reporting year (MWh)

52096

(7.30.14.6) Tracking instrument used

Select from:
☑ US-REC

(7.30.14.7) Country/area of origin (generation) of the low-carbon energy or energy attribute

Select from:
☑ United States of America

(7.30.14.8) Are you able to report the commissioning or re-powering year of the energy generation facility?

Select from:
☑ Yes

(7.30.14.9) Commissioning year of the energy generation facility (e.g. date of first commercial operation or repowering)

2022

(7.30.14.10) Comment

Commissioning of generating facilities (solar) varies from 2022 to 2023 (entered the year of the oldest project in the above field)

Row 7

(7.30.14.1) Country/area

Select from:
☑ China

(7.30.14.2) Sourcing method

Select from:
☑ Unbundled procurement of energy attribute certificates (EACs)

(7.30.14.3) Energy carrier

Select from:
☑ Electricity

(7.30.14.4) Low-carbon technology type

Select from:
☑ Solar

(7.30.14.5) Low-carbon energy consumed via selected sourcing method in the reporting year (MWh)

62059

(7.30.14.6) Tracking instrument used

Select from:
☑ GEC

(7.30.14.7) Country/area of origin (generation) of the low-carbon energy or energy attribute

Select from:
☑ China

(7.30.14.8) Are you able to report the commissioning or re-powering year of the energy generation facility?

Select from:
☑ Yes

(7.30.14.9) Commissioning year of the energy generation facility (e.g. date of first commercial operation or repowering)

2022

(7.30.14.10) Comment

Commissioning of generating facility (solar) - 2022

(7.30.16) Provide a breakdown by country/area of your electricity/heat/steam/cooling consumption in the reporting year.

China

(7.30.16.1) Consumption of purchased electricity (MWh)

250899

(7.30.16.2) Consumption of self-generated electricity (MWh)

0

(7.30.16.4) Consumption of purchased heat, steam, and cooling (MWh)

0

(7.30.16.5) Consumption of self-generated heat, steam, and cooling (MWh)

0

(7.30.16.6) Total electricity/heat/steam/cooling energy consumption (MWh)

250899.00

Japan

(7.30.16.1) Consumption of purchased electricity (MWh)

1016514

(7.30.16.2) Consumption of self-generated electricity (MWh)

539266

(7.30.16.4) Consumption of purchased heat, steam, and cooling (MWh)

0

(7.30.16.5) Consumption of self-generated heat, steam, and cooling (MWh)

0

(7.30.16.6) Total electricity/heat/steam/cooling energy consumption (MWh)

1555780.00

Malaysia

(7.30.16.1) Consumption of purchased electricity (MWh)

218233

(7.30.16.2) Consumption of self-generated electricity (MWh)

0

(7.30.16.4) Consumption of purchased heat, steam, and cooling (MWh)

0

(7.30.16.5) Consumption of self-generated heat, steam, and cooling (MWh)

0

(7.30.16.6) Total electricity/heat/steam/cooling energy consumption (MWh)

218233.00

Singapore

(7.30.16.1) Consumption of purchased electricity (MWh)

3022903

(7.30.16.2) Consumption of self-generated electricity (MWh)

73

(7.30.16.4) Consumption of purchased heat, steam, and cooling (MWh)

108249

(7.30.16.5) Consumption of self-generated heat, steam, and cooling (MWh)

0

(7.30.16.6) Total electricity/heat/steam/cooling energy consumption (MWh)

3131225.00

Taiwan, China

(7.30.16.1) Consumption of purchased electricity (MWh)

3217586

(7.30.16.2) Consumption of self-generated electricity (MWh)

0

(7.30.16.4) Consumption of purchased heat, steam, and cooling (MWh)

78386

(7.30.16.5) Consumption of self-generated heat, steam, and cooling (MWh)

0

(7.30.16.6) Total electricity/heat/steam/cooling energy consumption (MWh)

3295972.00

United States of America

(7.30.16.1) Consumption of purchased electricity (MWh)

1058658

(7.30.16.2) Consumption of self-generated electricity (MWh)

0

(7.30.16.4) Consumption of purchased heat, steam, and cooling (MWh)

0

(7.30.16.5) Consumption of self-generated heat, steam, and cooling (MWh)

0

(7.30.16.6) Total electricity/heat/steam/cooling energy consumption (MWh)

1058658.00

(7.45) 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.

(7.45.1) Intensity figure

0.00042

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

6836634

(7.45.3) Metric denominator

Select from:
☑ unit total revenue

(7.45.4) Metric denominator: Unit total

16181000000

(7.45.5) Scope 2 figure used

Select from:
☑ Market-based

(7.45.6) % change from previous year

51

(7.45.7) Direction of change

Select from:
☑ Increased

(7.45.8) Reasons for change

Select all that apply
☑ Change in revenue

(7.45.9) Please explain

Main driver of the increased intensity figure is the significant decrease in revenue compared to the previous reporting year. Note that the unit total revenue in the metric denominator reflects Micron's fiscal Q2 2023 through fiscal Q1 2024 (that is, December 2022 through November 2023) as the audited fiscal data that comes closest to reflecting the time period of the environmental data reported in this questionnaire, representing a very small (est

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

Select all that apply
☑ Absolute target
☑ Intensity target

(7.53.1) Provide details of your absolute emissions targets and progress made against those targets.

Row 1

(7.53.1.1) Target reference number

Select from:
☑ Abs 1

(7.53.1.2) Is this a science-based target?

Select from:
☑ Yes, we consider this a science-based target, but we have not committed to seek validation of this target by the Science Based Targets initiative within the next two years

(7.53.1.4) Target ambition

Select from:
☑ 1.5°C aligned

(7.53.1.5) Date target was set

12/31/2021

(7.53.1.6) Target coverage

Select from:
☑ Organization-wide

(7.53.1.7) Greenhouse gases covered by target

Select all that apply

- ☑ Methane (CH4)
- ☑ Nitrous oxide (N2O)
- ☑ Carbon dioxide (CO2)
- ☑ Perfluorocarbons (PFCs)
- ☑ Hydrofluorocarbons (HFCs)
- ☑ Sulphur hexafluoride (SF6)
- ☑ Nitrogen trifluoride (NF3)

(7.53.1.8) Scopes

Select all that apply

- ☑ Scope 1

(7.53.1.11) End date of base year

12/30/2020

(7.53.1.12) Base year Scope 1 emissions covered by target (metric tons CO2e)

3047919

(7.53.1.31) Base year total Scope 3 emissions covered by target (metric tons CO2e)

0.000

(7.53.1.32) Total base year emissions covered by target in all selected Scopes (metric tons CO2e)

3047919.000

(7.53.1.33) Base year Scope 1 emissions covered by target as % of total base year emissions in Scope 1

100

(7.53.1.53) Base year emissions covered by target in all selected Scopes as % of total base year emissions in all selected Scopes

100

(7.53.1.54) End date of target

12/30/2030

(7.53.1.55) Targeted reduction from base year (%)

42

(7.53.1.56) Total emissions at end date of target covered by target in all selected Scopes (metric tons CO2e)

1767793.020

(7.53.1.57) Scope 1 emissions in reporting year covered by target (metric tons CO2e)

2698572

(7.53.1.77) Total emissions in reporting year covered by target in all selected scopes (metric tons CO2e)

2698572.000

(7.53.1.78) Land-related emissions covered by target

Select from:
☑ No, it does not cover any land-related emissions (e.g. non-FLAG SBT)

(7.53.1.79) % of target achieved relative to base year

27.29

(7.53.1.80) Target status in reporting year

Select from:
☑ Underway

(7.53.1.82) Explain target coverage and identify any exclusions

All manufacturing facilities

(7.53.1.83) Target objective

42% absolute reduction in scope 1 emissions by CY30 from the CY20 baseline.

(7.53.1.84) Plan for achieving target, and progress made to the end of the reporting year

Actions included in the plan for achieving the target: reducing direct emissions through efficient abatement of process GHGs and a transition to low global-warming-potential heat transfer fluid. Progress made in 2023: 11.5% decrease in absolute scope 1 emissions compared to Scope 1 in baseline year 2020, as result of progress made in process optimization, abatement enablement, transition to lower-emitting heat transfer fluids and improve use efficiency.

(7.53.1.85) Target derived using a sectoral decarbonization approach

Select from:
☑ No

Row 3

(7.53.1.1) Target reference number

Select from:
☑ Abs 2

(7.53.1.2) Is this a science-based target?

Select from:
☑ Yes, we consider this a science-based target, and the target is currently being reviewed by the Science Based Targets initiative

(7.53.1.4) Target ambition

Select from:
☑ 1.5°C aligned

(7.53.1.5) Date target was set

12/31/2021

(7.53.1.6) Target coverage

Select from:
☑ Organization-wide

(7.53.1.7) Greenhouse gases covered by target

Select all that apply
☑ Methane (CH4)
☑ Nitrous oxide (N2O)
☑ Carbon dioxide (CO2)
☑ Perfluorocarbons (PFCs)
☑ Hydrofluorocarbons (HFCs)
☑ Sulphur hexafluoride (SF6)
☑ Nitrogen trifluoride (NF3)

(7.53.1.8) Scopes

Select all that apply
☑ Scope 1
☑ Scope 2

(7.53.1.9) Scope 2 accounting method

Select from:
☑ Market-based

(7.53.1.11) End date of base year

12/30/2020

(7.53.1.12) Base year Scope 1 emissions covered by target (metric tons CO2e)

3047919

(7.53.1.13) Base year Scope 2 emissions covered by target (metric tons CO2e)

3621519

(7.53.1.31) Base year total Scope 3 emissions covered by target (metric tons CO2e)

0.000

(7.53.1.32) Total base year emissions covered by target in all selected Scopes (metric tons CO2e)

6669438.000

(7.53.1.33) Base year Scope 1 emissions covered by target as % of total base year emissions in Scope 1

100.0

(7.53.1.34) Base year Scope 2 emissions covered by target as % of total base year emissions in Scope 2

100.0

(7.53.1.53) Base year emissions covered by target in all selected Scopes as % of total base year emissions in all selected Scopes

100.0

(7.53.1.54) End date of target

12/30/2050

(7.53.1.55) Targeted reduction from base year (%)

100

(7.53.1.56) Total emissions at end date of target covered by target in all selected Scopes (metric tons CO2e)

0.000

(7.53.1.57) Scope 1 emissions in reporting year covered by target (metric tons CO2e)

2698572

(7.53.1.58) Scope 2 emissions in reporting year covered by target (metric tons CO2e)

4138062

(7.53.1.77) Total emissions in reporting year covered by target in all selected scopes (metric tons CO2e)

6836634.000

(7.53.1.78) Land-related emissions covered by target

Select from:
☑ No, it does not cover any land-related emissions (e.g. non-FLAG SBT)

(7.53.1.79) % of target achieved relative to base year

-2.51

(7.53.1.80) Target status in reporting year

Select from:
☑ Underway

(7.53.1.82) Explain target coverage and identify any exclusions

All manufacturing facilities

(7.53.1.83) Target objective

Net zero GHG emissions in our operations (scope 1) and purchased energy (scope 2) by 2050.

(7.53.1.84) Plan for achieving target, and progress made to the end of the reporting year

In addition to the projects and programs to reduce Scope 1 and achieve ABS 1 target, we are driving specific projects and program to drive Scope 2 reduction by expanding the use of renewable energy, based on availability of each location where we operate, and drive energy efficiency improvement in our processes and equipment. In 2023 our total Scope 1 and Scope 2 emissions is 2.5% higher than 2020 baseline year, yet showing 10% decrease compared to 2022, as result of multiple projects implemented in the reporting year. Progress made in 2023: Micron achieved 100% renewable electricity for our operations in mainland China through the purchase of green electricity certificates (GECs). In US, a new offsite PPA officially started in Boise and purchased RECs for our Manassas facility. We expanded our on-site solar capabilities in Singapore and continue to purchase 100% renewable electricity for our facilities in Malaysia through the Green Electricity Tariff program.

(7.53.1.85) Target derived using a sectoral decarbonization approach

Select from:
☑ No

(7.53.2) Provide details of your emissions intensity targets and progress made against those targets.

Row 1

(7.53.2.33) Intensity figure in base year for all selected Scopes (metric tons CO2e per unit of activity)

0.0000000000

(7.53.2.80) Intensity figure in reporting year for all selected Scopes (metric tons CO2e per unit of activity)

0.0000000000

Row 2

(7.53.2.1) Target reference number

Select from:
☑ Int 2

(7.53.2.8) Scopes

Select all that apply
☑ Scope 1
☑ Scope 2

(7.53.2.9) Scope 2 accounting method

Select from:
☑ Market-based

(7.53.2.11) Intensity metric

Select from:
☑ Metric tons CO2e per unit of production

(7.53.2.33) Intensity figure in base year for all selected Scopes (metric tons CO2e per unit of activity)

0.0000000000

(7.53.2.54) % of total base year emissions in all selected Scopes covered by this intensity figure

100.0

(7.53.2.80) Intensity figure in reporting year for all selected Scopes (metric tons CO2e per unit of activity)

0.0000000000

(7.53.2.81) Land-related emissions covered by target

Select from:
☑ No, it does not cover any land-related emissions (e.g. non-FLAG SBT)

(7.53.2.83) Target status in reporting year

Select from:
☑ Retired

(7.53.2.84) Explain the reasons for the revision, replacement, or retirement of the target

Retired after establishment of absolute goal

Row 3

(7.53.2.1) Target reference number

Select from:
☑ Int 1

(7.53.2.8) Scopes

Select all that apply
☑ Scope 1

☑ Scope 2

(7.53.2.9) Scope 2 accounting method

Select from:
☑ Market-based

(7.53.2.11) Intensity metric

Select from:
☑ Metric tons CO2e per unit of production

(7.53.2.33) Intensity figure in base year for all selected Scopes (metric tons CO2e per unit of activity)

0.0000000000

(7.53.2.34) % of total base year emissions in Scope 1 covered by this Scope 1 intensity figure

100.0

(7.53.2.35) % of total base year emissions in Scope 2 covered by this Scope 2 intensity figure

100.0

(7.53.2.54) % of total base year emissions in all selected Scopes covered by this intensity figure

100.0

(7.53.2.80) Intensity figure in reporting year for all selected Scopes (metric tons CO2e per unit of activity)

0.0000000000

(7.53.2.81) Land-related emissions covered by target

Select from:
☑ No, it does not cover any land-related emissions (e.g. non-FLAG SBT)

(7.53.2.83) Target status in reporting year

Select from:
☑ Retired

(7.53.2.84) Explain the reasons for the revision, replacement, or retirement of the target

Retired after establishment of absolute goal

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

Select all that apply
☑ Targets to increase or maintain low-carbon energy consumption or production

(7.54.1) Provide details of your targets to increase or maintain low-carbon energy consumption or production.

Row 1

(7.54.1.1) Target reference number

Select from:
☑ Low 1

(7.54.1.2) Date target was set

12/31/2019

(7.54.1.3) Target coverage

Select from:
☑ Country/area/region

(7.54.1.4) Target type: energy carrier

Select from:
☑ Electricity

(7.54.1.5) Target type: activity

Select from:
☑ Consumption

(7.54.1.6) Target type: energy source

Select from:
☑ Renewable energy source(s) only

(7.54.1.7) End date of base year

12/30/2020

(7.54.1.8) Consumption or production of selected energy carrier in base year (MWh)

0

(7.54.1.9) % share of low-carbon or renewable energy in base year

0

(7.54.1.10) End date of target

12/30/2025

(7.54.1.11) % share of low-carbon or renewable energy at end date of target

100

(7.54.1.12) % share of low-carbon or renewable energy in reporting year

10.4

(7.54.1.13) % of target achieved relative to base year

10.40

(7.54.1.14) Target status in reporting year

Select from:
☑ Underway

(7.54.1.16) Is this target part of an emissions target?

Yes, ABS 1 and ABS 2

(7.54.1.17) Is this target part of an overarching initiative?

Select all that apply
☑ No, it's not part of an overarching initiative

(7.54.1.19) Explain target coverage and identify any exclusions

Manufacturing sites in US

(7.54.1.20) Target objective

100% renewable energy for its U.S. operations by the end of 2025

(7.54.1.21) Plan for achieving target, and progress made to the end of the reporting year

Our renewable energy strategy includes a combination of green tariffs, physical and virtual power purchase agreements (PPAs), renewable energy credit (REC) purchase agreement. We have criteria to aid in the use of renewable energy whenever possible, considering the availability of affordable renewable energy based on the unique landscapes in each country where we operate. The 40-megawatt Black Mesa solar project located near our Boise headquarters came online in June 2023 by supplying renewable energy to the Boise campus and we purchased additional unbundled RECs to achieve 10% renewable electricity use for the Boise facility in 2023.

(7.55) 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.

Select from:
☑ Yes

(7.55.1) 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*	*`Numeric input*
To be implemented	*54*	*27492*
Implementation commenced	*123*	*333234*
Implemented	*265*	*266433*
Not to be implemented	*0*	*`Numeric input*

(7.55.2) Provide details on the initiatives implemented in the reporting year in the table below.

Row 1

(7.55.2.1) Initiative category & Initiative type

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

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

28357

(7.55.2.3) Scope(s) or Scope 3 category(ies) where emissions savings occur

Select all that apply
☑ Scope 2 (market-based)

(7.55.2.4) Voluntary/Mandatory

Select from:
☑ Voluntary

(7.55.2.8) Estimated lifetime of the initiative

Select from:
☑ 6-10 years

(7.55.2.9) Comment

Combination of projects on HVAC optimization/upgrade to high efficiency: pressure optimization, make up air unit improvement, exhaust balance/optimization. Including smart controls associated to the upgrade. Lifetime ranges have been determined as the average of projects within this category.

Row 2

(7.55.2.1) Initiative category & Initiative type

Energy efficiency in buildings
☑ Building Energy Management Systems (BEMS)

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

7824

(7.55.2.3) Scope(s) or Scope 3 category(ies) where emissions savings occur

Select all that apply
☑ Scope 2 (market-based)

(7.55.2.4) Voluntary/Mandatory

Select from:
☑ Voluntary

(7.55.2.8) Estimated lifetime of the initiative

Select from:
☑ 6-10 years

(7.55.2.9) Comment

Combination of mechanical upgrades to higher efficiency motors, implementation of advanced control strategies, and optimization. Lifetime ranges have been determined as the average of projects within this category.

Row 3

(7.55.2.1) Initiative category & Initiative type

Energy efficiency in buildings
☑ Lighting

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

3472

(7.55.2.3) Scope(s) or Scope 3 category(ies) where emissions savings occur

Select all that apply
☑ Scope 2 (market-based)

(7.55.2.4) Voluntary/Mandatory

Select from:
☑ Voluntary

(7.55.2.8) Estimated lifetime of the initiative

Select from:
☑ 6-10 years

(7.55.2.9) Comment

Replaced lighting from Fluorescent to LED light, installation of light sensors and smart control. Lifetime ranges have been determined as the average of projects within this category.

Row 4

(7.55.2.1) Initiative category & Initiative type

Energy efficiency in production processes
☑ Process optimization

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

42033

(7.55.2.3) Scope(s) or Scope 3 category(ies) where emissions savings occur

Select all that apply
☑ Scope 2 (market-based)

(7.55.2.4) Voluntary/Mandatory

Select from:
☑ Voluntary

(7.55.2.8) Estimated lifetime of the initiative

Select from:
☑ 6-10 years

(7.55.2.9) Comment

Combination of projects - optimization of uptime, operational parameters adjustments. Optimization of utilities consumption (power, CDA, heat), optimization of process duration. Lifetime ranges have been determined as the average of projects within this category.

Row 5

(7.55.2.1) Initiative category & Initiative type

Energy efficiency in production processes
☑ Machine/equipment replacement

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

1752

(7.55.2.3) Scope(s) or Scope 3 category(ies) where emissions savings occur

Select all that apply
☑ Scope 2 (market-based)

(7.55.2.4) Voluntary/Mandatory

Select from:
☑ Voluntary

(7.55.2.8) Estimated lifetime of the initiative

Select from:
☑ 6-10 years

(7.55.2.9) Comment

Replacement of old equipment with high efficiency systems: chillers, pumps, motors, fans. Lifetime ranges have been determined as the average of projects within this category.

Row 6

(7.55.2.1) Initiative category & Initiative type

Energy efficiency in production processes
☑ Compressed air

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

1831

(7.55.2.3) Scope(s) or Scope 3 category(ies) where emissions savings occur

Select all that apply
☑ Scope 2 (market-based)

(7.55.2.4) Voluntary/Mandatory

Select from:
☑ Voluntary

(7.55.2.8) Estimated lifetime of the initiative

Select from:
☑ 6-10 years

(7.55.2.9) Comment

Compressed Air system optimization: leak reduction, consumption optimization. Lifetime ranges have been determined as the average of projects within this category

Row 7

(7.55.2.1) Initiative category & Initiative type

Fugitive emissions reductions
☑ Refrigerant leakage reduction

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

43485

(7.55.2.3) Scope(s) or Scope 3 category(ies) where emissions savings occur

Select all that apply

☑ Scope 1

(7.55.2.4) Voluntary/Mandatory

Select from:
☑ Voluntary

(7.55.2.8) Estimated lifetime of the initiative

Select from:
☑ Ongoing

(7.55.2.9) Comment

Leakage reduction of refrigerants used in chillers.

Row 8

(7.55.2.1) Initiative category & Initiative type

Non-energy industrial process emissions reductions
☑ Other, please specify **:**Abatement

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

248521

(7.55.2.3) Scope(s) or Scope 3 category(ies) where emissions savings occur

Select all that apply
☑ Scope 1

(7.55.2.4) Voluntary/Mandatory

Select from:
☑ Voluntary

(7.55.2.8) Estimated lifetime of the initiative

Select from:
☑ Ongoing

(7.55.2.9) Comment

Additional installation of abatement units for process greenhouse gases (only new units installed in 2023 are considered). ROI not applicable.

Row 9

(7.55.2.1) Initiative category & Initiative type

Non-energy industrial process emissions reductions
☑ Process material substitution

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

134070

(7.55.2.3) Scope(s) or Scope 3 category(ies) where emissions savings occur

Select all that apply
☑ Scope 1

(7.55.2.4) Voluntary/Mandatory

Select from:
☑ Voluntary

(7.55.2.8) Estimated lifetime of the initiative

Select from:
☑ Ongoing

(7.55.2.9) Comment

Replacement of conventional refrigerants/heat transfer fluids with lower GWP alternatives.

Row 10

(7.55.2.1) Initiative category & Initiative type

Non-energy industrial process emissions reductions
☑ Process material efficiency

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

17551

(7.55.2.3) Scope(s) or Scope 3 category(ies) where emissions savings occur

Select all that apply
☑ Scope 1

(7.55.2.4) Voluntary/Mandatory

Select from:
☑ Voluntary

(7.55.2.8) Estimated lifetime of the initiative

Select from:
☑ Ongoing

(7.55.2.9) Comment

Optimization of HFC/PFC process gases consumption

(7.55.3) What methods do you use to drive investment in emissions reduction activities?

Row 1

(7.55.3.1) Method

Select from:
☑ Lower return on investment (ROI) specification

(7.55.3.2) Comment

Micron defined internal Sustainability ROI and NPV guidelines to prioritize reduction opportunities.

Row 3

(7.55.3.1) Method

Select from:
☑ Other

(7.55.3.2) Comment

Benchmarking on emission reduction solutions in the industry sector

(7.73) Are you providing product level data for your organization's goods or services?

Select from:
☑ No, I am not providing data

(7.74) Do you classify any of your existing goods and/or services as low-carbon products?

Select from:
☑ Yes

(7.74.1) Provide details of your products and/or services that you classify as low-carbon products.

Row 1

(7.74.1.1) Level of aggregation

Select from:
☑ Group of products or services

(7.74.1.2) Taxonomy used to classify product(s) or service(s) as low-carbon

Select from:
☑ Other, please specify**:** Power consumption by application

(7.74.1.3) Type of product(s) or service(s)

Other
☑ Other, please specify**:** electronic components

(7.74.1.4) Description of product(s) or service(s)

Lower power usage and higher performance is the driver in the evolution of our entire product line. As an example, products for the mobile market require dense optimized power efficient solutions while memory and storage solutions for the compute centric markets drive more efficient workload management compared with alternate technologies. Energy efficiency is a key competitive advantage to our products and will continue to be an integral part of the R&D, design and manufacture of our core products. While we continue to focus on energy efficiency in products both across the board and in specific categories such as low power DRAM, we are in the process of updating our definitions and do not currently have a specific revenue estimate for 2023.

(7.74.1.5) Have you estimated the avoided emissions of this low-carbon product(s) or service(s)

Select from:
☑ No

(7.79) Has your organization canceled any project-based carbon credits within the reporting year?

Select from:
☑ No

C9. Environmental performance - Water security

(9.1) Are there any exclusions from your disclosure of water-related data?

Select from:
☑ Yes

(9.1.1) Provide details on these exclusions.

Row 1

(9.1.1.1) Exclusion

Select from:
☑ Specific groups, businesses, or organizations

(9.1.1.2) Description of exclusion

Excluded non-manufacturing locations, including office-based activities (design, marketing, sales)

(9.1.1.3) Reason for exclusion

Select from:
☑ Other, please specify**:** Volume not significant

(9.1.1.7) Percentage of water volume the exclusion represents

Select from:
☑ Less than 1%

(9.1.1.8) Please explain

Water use is negligible

(9.2) Across all your operations, what proportion of the following water aspects are regularly measured and monitored?

Water withdrawals – total volumes

(9.2.1) % of sites/facilities/operations

Select from:
☑ 100%

(9.2.2) Frequency of measurement

Select from:

☑ Daily

(9.2.3) Method of measurement

meter

(9.2.4) Please explain

Water withdrawals (total volume) are tracked across all locations on a daily basis at a minimum

Water withdrawals – volumes by source

(9.2.1) % of sites/facilities/operations

Select from:
☑ 100%

(9.2.2) Frequency of measurement

Select from:
☑ Daily

(9.2.3) Method of measurement

meter

(9.2.4) Please explain

Water withdrawals (total volume) are tracked across all locations on a daily basis at a minimum

Water withdrawals quality

(9.2.1) % of sites/facilities/operations

Select from:
☑ 100%

(9.2.2) Frequency of measurement

Select from:
☑ Daily

(9.2.3) Method of measurement

online sensors

(9.2.4) Please explain

Quality of incoming water is tracked across all locations on a daily basis

Water discharges – total volumes

(9.2.1) % of sites/facilities/operations

Select from:
☑ 100%

(9.2.2) Frequency of measurement

Select from:
☑ Daily

(9.2.3) Method of measurement

meter

(9.2.4) Please explain

Water discharge is tracked across all manufacturing locations - frequency might vary as per local requirement.

Water discharges – volumes by destination

(9.2.1) % of sites/facilities/operations

Select from:
☑ 100%

(9.2.2) Frequency of measurement

Select from:
☑ Daily

(9.2.3) Method of measurement

meter

(9.2.4) Please explain

Water discharge is tracked across all locations - frequency might vary as per local requirement.

Water discharges – volumes by treatment method

(9.2.1) % of sites/facilities/operations

Select from:
☑ 100%

(9.2.2) Frequency of measurement

Select from:
☑ Daily

(9.2.3) Method of measurement

meter

(9.2.4) Please explain

Water discharge by treatment is tracked across all locations on a daily basis

Water discharge quality – by standard effluent parameters

(9.2.1) % of sites/facilities/operations

Select from:
☑ 100%

(9.2.2) Frequency of measurement

Select from:
☑ Other, please specify**: Continuous** and periodic

(9.2.3) Method of measurement

Online monitoring of critical parameters and periodic monitoring (weekly, monthly) of all parameters in accordance with local requirements.

(9.2.4) Please explain

Water discharge quality by standard effluent parameters is regularly monitored, reported, and documented by site-level environmental engineering team to ensure compliance with applicable standards/regulations. Discharge monitoring only applies to manufacturing locations then monitored 100%.

Water discharge quality – emissions to water (nitrates, phosphates, pesticides, and/or other priority substances)

(9.2.1) % of sites/facilities/operations

Select from:
☑ 100%

(9.2.2) Frequency of measurement

Select from:
☑ Other, please specify**:** Periodic

(9.2.3) Method of measurement

Sampling and analytical test

(9.2.4) Please explain

Periodic monitoring based upon local requirements for these specific parameters where applicable

Water discharge quality – temperature

(9.2.1) % of sites/facilities/operations

Select from:
☑ 100%

(9.2.2) Frequency of measurement

Select from:
☑ Other, please specify**:** Periodic

(9.2.3) Method of measurement

Periodic monitoring based upon local requirements for this specific parameter

(9.2.4) Please explain

Temperature of water discharged is regularly monitored at all manufacturing locations. Discharge monitoring only applies to manufacturing locations then monitored 100%

Water consumption – total volume

(9.2.1) % of sites/facilities/operations

Select from:
☑ 100%

(9.2.2) Frequency of measurement

Select from:
☑ Monthly

(9.2.3) Method of measurement

Calculation: total withdrawal - total water discharge

(9.2.4) Please explain

Water consumption (total volume) is relevant across Micron manufacturing locations and is therefore monitored across 100% of Micron's manufacturing locations.

Water recycled/reused

(9.2.1) % of sites/facilities/operations

Select from:
☑ 100%

(9.2.2) Frequency of measurement

Select from:
☑ Monthly

(9.2.3) Method of measurement

Meter and calculation

(9.2.4) Please explain

Water recycled and reused is regularly monitored and reported across Micron manufacturing locations. Recycled/reused water only applies to and is monitored for 100% of Micron's manufacturing locations.

The provision of fully-functioning, safely managed WASH services to all workers

(9.2.1) % of sites/facilities/operations

Select from:
☑ 100%

(9.2.2) Frequency of measurement

Select from:
☑ Continuously

(9.2.3) Method of measurement

All facilities (manufacturing and nonmanufacturing) have water supply, adequate sanitation and hygiene service for all workers.

(9.2.4) Please explain

All facilities (manufacturing and non-manufacturing) have water supply, adequate sanitation and hygiene service for all workers.

(9.2.2) What are the total volumes of water withdrawn, discharged, and consumed across all your operations, how do they compare to the previous reporting year, and how are they forecasted to change?

Total withdrawals

(9.2.2.1) Volume (megaliters/year)

56138

(9.2.2.2) Comparison with previous reporting year

Select from:
☑ Lower

(9.2.2.3) Primary reason for comparison with previous reporting year

Select from:
☑ Increase/decrease in efficiency

(9.2.2.4) Five-year forecast

Select from:
☑ Higher

(9.2.2.5) Primary reason for forecast

Select from:
☑ Facility expansion

(9.2.2.6) Please explain

2023 decreased compared to 2022 due to significant investment in water reuse/recycle and manufacturing efficiency. Forecast: significant manufacturing expansion planned in the next 5 years. New factories will be designed with the latest water efficiency and reuse/recycle solutions to minimize water withdrawal.

Total discharges

(9.2.2.1) Volume (megaliters/year)

41819

(9.2.2.2) Comparison with previous reporting year

Select from:
☑ Lower

(9.2.2.3) Primary reason for comparison with previous reporting year

Select from:
☑ Increase/decrease in efficiency

(9.2.2.4) Five-year forecast

Select from:
☑ Higher

(9.2.2.5) Primary reason for forecast

Select from:
☑ Facility expansion

(9.2.2.6) Please explain

2023 decreased compared to 2022 due to significant investment in water reuse/recycle and manufacturing efficiency. Forecast: significant manufacturing expansion planned in the next 5 years. New factories will be designed with the latest water efficiency and reuse/recycle solutions to minimize water withdrawal.

Total consumption

(9.2.2.1) Volume (megaliters/year)

14319

(9.2.2.2) Comparison with previous reporting year

Select from:
☑ Lower

(9.2.2.3) Primary reason for comparison with previous reporting year

Select from:
☑ Increase/decrease in efficiency

(9.2.2.4) Five-year forecast

Select from:
☑ Higher

(9.2.2.5) Primary reason for forecast

Select from:
☑ Facility expansion

(9.2.2.6) Please explain

2023 decreased compared to 2022 due to significant investment in water reuse/recycle and manufacturing efficiency. Forecast: significant manufacturing expansion planned in the next 5 years. New factories will be designed with the latest water efficiency and reuse/recycle solutions to minimize water withdrawal.

(9.2.4) Indicate whether water is withdrawn from areas with water stress, provide the volume, how it compares with the previous reporting year, and how it is forecasted to change.

(9.2.4.1) Withdrawals are from areas with water stress

Select from:
☑ Yes

(9.2.4.2) Volume withdrawn from areas with water stress (megaliters)

10000

(9.2.4.3) Comparison with previous reporting year

Select from:
☑ Higher

(9.2.4.4) Primary reason for comparison with previous reporting year

Select from:
☑ Change in accounting methodology

(9.2.4.5) Five-year forecast

Select from:
☑ About the same

(9.2.4.6) Primary reason for forecast

Select from:
☑ Investment in water-smart technology/process

(9.2.4.7) % of total withdrawals that are withdrawn from areas with water stress

17.81

(9.2.4.8) Identification tool

Select all that apply
☑ WRI Aqueduct

(9.2.4.9) Please explain

Water stress assessment updated through WRI Aqueduct 4.0 water risk atlas. Results changed compared to 2022 and more locations have been classified as high baseline water stress.

(9.2.7) Provide total water withdrawal data by source.

Fresh surface water, including rainwater, water from wetlands, rivers, and lakes

(9.2.7.1) Relevance

Select from:
☑ Relevant

(9.2.7.2) Volume (megaliters/year)

1358

(9.2.7.3) Comparison with previous reporting year

Select from:
☑ About the same

(9.2.7.4) Primary reason for comparison with previous reporting year

Select from:
☑ Other, please specify **:**no change in relevant locations

(9.2.7.5) Please explain

No significant change in the affected locations

Brackish surface water/Seawater

(9.2.7.1) Relevance

Select from:
☑ Not relevant

(9.2.7.5) Please explain

Not applicable

Groundwater – renewable

(9.2.7.1) Relevance

Select from:
☑ Relevant

(9.2.7.2) Volume (megaliters/year)

4292

(9.2.7.3) Comparison with previous reporting year

Select from:
☑ About the same

(9.2.7.4) Primary reason for comparison with previous reporting year

Select from:
☑ Other, please specify**:** no change in relevant locations

(9.2.7.5) Please explain

No significant change in the affected locations

Groundwater – non-renewable

(9.2.7.1) Relevance

Select from:
☑ Not relevant

(9.2.7.5) Please explain

Not applicable

Produced/Entrained water

(9.2.7.1) Relevance

Select from:
☑ Not relevant

(9.2.7.5) Please explain

Not applicable

Third party sources

(9.2.7.1) Relevance

Select from:
☑ Relevant

(9.2.7.2) Volume (megaliters/year)

50488

(9.2.7.3) Comparison with previous reporting year

Select from:
☑ Lower

(9.2.7.4) Primary reason for comparison with previous reporting year

Select from:

☑ Increase/decrease in efficiency

(9.2.7.5) Please explain

2023 decreased compared to 2022 due to significant investment in water reuse/recycle and manufacturing efficiency.

(9.2.8) Provide total water discharge data by destination.

Fresh surface water

(9.2.8.1) Relevance

Select from:
☑ Relevant

(9.2.8.2) Volume (megaliters/year)

5019

(9.2.8.3) Comparison with previous reporting year

Select from:
☑ Lower

(9.2.8.4) Primary reason for comparison with previous reporting year

Select from:
☑ Increase/decrease in efficiency

(9.2.8.5) Please explain

Increased onsite reuse/recycle with a decrease in discharge

Brackish surface water/seawater

(9.2.8.1) Relevance

Select from:
☑ Not relevant

(9.2.8.5) Please explain

Not applicable

Groundwater

(9.2.8.1) Relevance

Select from:
☑ Not relevant

(9.2.8.5) Please explain

Not applicable

Third-party destinations

(9.2.8.1) Relevance

Select from:
☑ Relevant

(9.2.8.2) Volume (megaliters/year)

36800

(9.2.8.3) Comparison with previous reporting year

Select from:
☑ Lower

(9.2.8.4) Primary reason for comparison with previous reporting year

Select from:

☑ Increase/decrease in efficiency

(9.2.8.5) Please explain

Increased onsite reuse/recycle with a decrease in discharge

(9.2.9) Within your direct operations, indicate the highest level(s) to which you treat your discharge.

Tertiary treatment

(9.2.9.1) Relevance of treatment level to discharge

Select from:
☑ Relevant

(9.2.9.2) Volume (megaliters/year)

41819

(9.2.9.3) Comparison of treated volume with previous reporting year

Select from:
☑ Lower

(9.2.9.4) Primary reason for comparison with previous reporting year

Select from:
☑ Increase/decrease in efficiency

(9.2.9.5) % of your sites/facilities/operations this volume applies to

Select from:
☑ 100%

(9.2.9.6) Please explain

Increased onsite reuse/recycle with a decrease in discharge

Secondary treatment

(9.2.9.1) Relevance of treatment level to discharge

Select from:
☑ Not relevant

(9.2.9.6) Please explain

Not applicable

Primary treatment only

(9.2.9.1) Relevance of treatment level to discharge

Select from:
☑ Not relevant

(9.2.9.6) Please explain

Not applicable

Discharge to the natural environment without treatment

(9.2.9.1) Relevance of treatment level to discharge

Select from:
☑ Not relevant

(9.2.9.6) Please explain

Not applicable

Discharge to a third party without treatment

(9.2.9.1) Relevance of treatment level to discharge

Select from:
☑ Not relevant

(9.2.9.6) Please explain

Not applicable

Other

(9.2.9.1) Relevance of treatment level to discharge

Select from:
☑ Not relevant

(9.2.9.6) Please explain

Not applicable

(9.2.10) Provide details of your organization's emissions of nitrates, phosphates, pesticides, and other priority substances to water in the reporting year.

Emissions to water in the reporting year (metric tons)	Categories of substances included	Please explain
0	*Select all that apply* ☑ Pesticides	*we do not use pesticides in our manufacturing process.*

(9.3) In your direct operations and upstream value chain, what is the number of facilities where you have identified substantive water-related dependencies, impacts, risks, and opportunities?

Direct operations

(9.3.1) Identification of facilities in the value chain stage

Select from:
☑ Yes, we have assessed this value chain stage and identified facilities with water-related dependencies, impacts, risks, and opportunities

(9.3.2) Total number of facilities identified

3

(9.3.3) % of facilities in direct operations that this represents

Select from:
☑ 1-25

(9.3.4) Please explain

Micron uses the WRI water risk assessment tool Aqueduct (latest version 4.0) to identify regions/areas exposed to water risk. Three of our facilities (Xi'an - China, Boise - Idaho, and Manassas - Virginia) operate in areas with high water stress, for a total 18% of water withdrawn from regions with high baseline water stress.

Upstream value chain

(9.3.1) Identification of facilities in the value chain stage

Select from:
☑ No, we have not assessed this value chain stage for facilities with water-related dependencies, impacts, risks, and opportunities, and are not planning to do so in the next 2 years

(9.3.4) Please explain

We will evaluate the upstream water risk based upon CDP Supply Chain responses

(9.3.2) For the facilities in your direct operations referenced in 9.3.1, what proportion of water accounting data has been third party verified?

Water withdrawals – total volumes

(9.3.2.1) % verified

Select from:
☑ 76-100

(9.3.2.2) Verification standard used

ISAE 3000

Water withdrawals – volume by source

(9.3.2.1) % verified

Select from:
☑ 76-100

(9.3.2.2) Verification standard used

ISAE 3000

Water withdrawals – quality by standard water quality parameters

(9.3.2.1) % verified

Select from:
☑ Not verified

(9.3.2.3) Please explain

not verified

Water discharges – total volumes

(9.3.2.1) % verified

Select from:
☑ 76-100

(9.3.2.2) Verification standard used

ISAE 3000

Water discharges – volume by destination

(9.3.2.1) % verified

Select from:
☑ 76-100

(9.3.2.2) Verification standard used

ISAE 3000

Water discharges – volume by final treatment level

(9.3.2.1) % verified

Select from:
☑ Not verified

(9.3.2.3) Please explain

not verified

Water discharges – quality by standard water quality parameters

(9.3.2.1) % verified

Select from:
☑ Not verified

(9.3.2.3) Please explain

not verified

Water consumption – total volume

(9.3.2.1) % verified

Select from:
☑ 76-100

(9.3.2.2) Verification standard used

ISAE 3000

(9.4) Could any of your facilities reported in 9.3.1 have an impact on a requesting CDP supply chain member?

Select from:
☑ This is confidential

(9.5) Provide a figure for your organization's total water withdrawal efficiency.

Revenue (currency)	Total water withdrawal efficiency	Anticipated forward trend
16181000	*288.24*	*Revenue-based efficiency is a highly variable (and therefore poor) metric in a cyclical industry. Micron does not project a trend.*

(9.14) Do you classify any of your current products and/or services as low water impact?

Products and/or services classified as low water impact	Primary reason for not classifying any of your current products and/or services as low water impact	Please explain
Select from: ☑ No, and we do not plan to address this within the next two years	*Select from:* ☑ Judged to be unimportant, explanation provided	*Micron's products do not use water, and generally do not have implications for water use.*

(9.15) Do you have any water-related targets?

Select from:
☑ Yes

(9.15.1) Indicate whether you have targets relating to water pollution, water withdrawals, WASH, or other water-related categories.

	Target set in this category	Please explain
Water pollution	*Select from:* ☑ No, and we do not plan to within the next two years	*na*
Water withdrawals	*Select from:* ☑ Yes	*Rich text input [must be under 1000 characters]*
Water, Sanitation, and Hygiene (WASH) services	*Select from:* ☑ No, and we do not plan to within the next two years	*na*
Other	*Select from:* ☑ Yes	*Rich text input [must be under 1000 characters]*

(9.15.2) Provide details of your water-related targets and the progress made.

Row 1

(9.15.2.1) Target reference number

Select from:
☑ Target 1

(9.15.2.2) Target coverage

Select from:
☑ Organization-wide (direct operations only)

(9.15.2.3) Category of target & Quantitative metric

Other

☑ Other, please specify**:** Water reuse, recycle and restoration

(9.15.2.4) Date target was set

12/31/2019

(9.15.2.5) End date of base year

12/30/2020

(9.15.2.6) Base year figure

50

(9.15.2.7) End date of target year

12/30/2030

(9.15.2.8) Target year figure

75

(9.15.2.9) Reporting year figure

68.8

(9.15.2.10) Target status in reporting year

Select from:

☑ Underway

(9.15.2.11) % of target achieved relative to base year

75

(9.15.2.12) Global environmental treaties/initiatives/ frameworks aligned with or supported by this target

Select all that apply
☑ None, no alignment after assessment

(9.15.2.13) Explain target coverage and identify any exclusions

all manufacturing facilities

(9.15.2.14) Plan for achieving target, and progress made to the end of the reporting year

Water conservation goal: combination of internal reuse and recycled water and external restoration projects. We achieved 68.8% in CY23 with a 4% increase compared to CY22 performance.

(9.15.2.16) Further details of target

In the 2024 sustainability report we provided an update on progress toward Water Stewardship Goal. https://www.micron.com/about/our-commitment/operatingthoughtfully/sustainability

C13. Further information & sign off

(13.1) Indicate if any environmental information included in your CDP response (not already reported in 7.9.1/2/3, 8.9.1/2/3/4, and 9.3.2) is verified and/or assured by a third party?

Other environmental information included in your CDP response is verified and/or assured by a third party
Select from: ☑ Yes

(13.1.1) Which data points within your CDP response are verified and/or assured by a third party, and which standards were used?

(13.1.1.1) Environmental issue for which data has been verified and/or assured

Select all that apply
☑ Climate change
☑ Water

(13.1.1.2) Disclosure module and data verified and/or assured

Environmental performance – Water security

☑ Water consumption– total volume
☑ Water discharges– total volumes
☑ Water withdrawals– total volumes
☑ Water withdrawals – volumes by source
☑ Water discharges – volumes by destination
☑ Water discharges – volumes by treatment method
☑ Volume withdrawn from areas with water stress (megaliters)

(13.1.1.3) Verification/assurance standard

General standards

☑ ISAE 3000

(13.1.1.4) Further details of the third-party verification/assurance process

Limited assurance

(13.1.1.5) Attach verification/assurance evidence/report (optional)

2024-micron-assurance-statement.pdf

(13.3) Provide the following information for the person that has signed off (approved) your CDP response.

(13.3.1) Job title

Vice President, EHS & Sustainability

(13.3.2) Corresponding job category

Select from:

☑ Chief Sustainability Officer (CSO)