



2023 **TCFD** REPORT

GLOBAL UNICHIP CORPORATION
Task Force on Climate-related
Financial Disclosures (TCFD) Status Report

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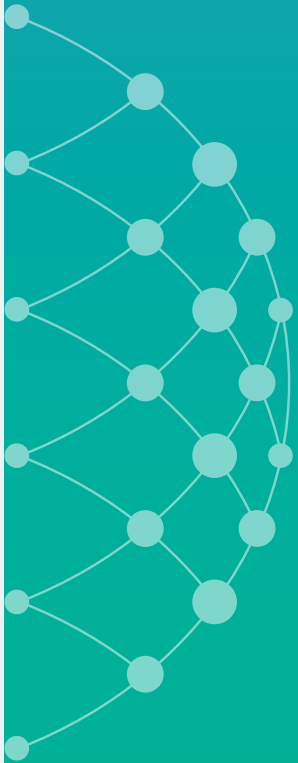
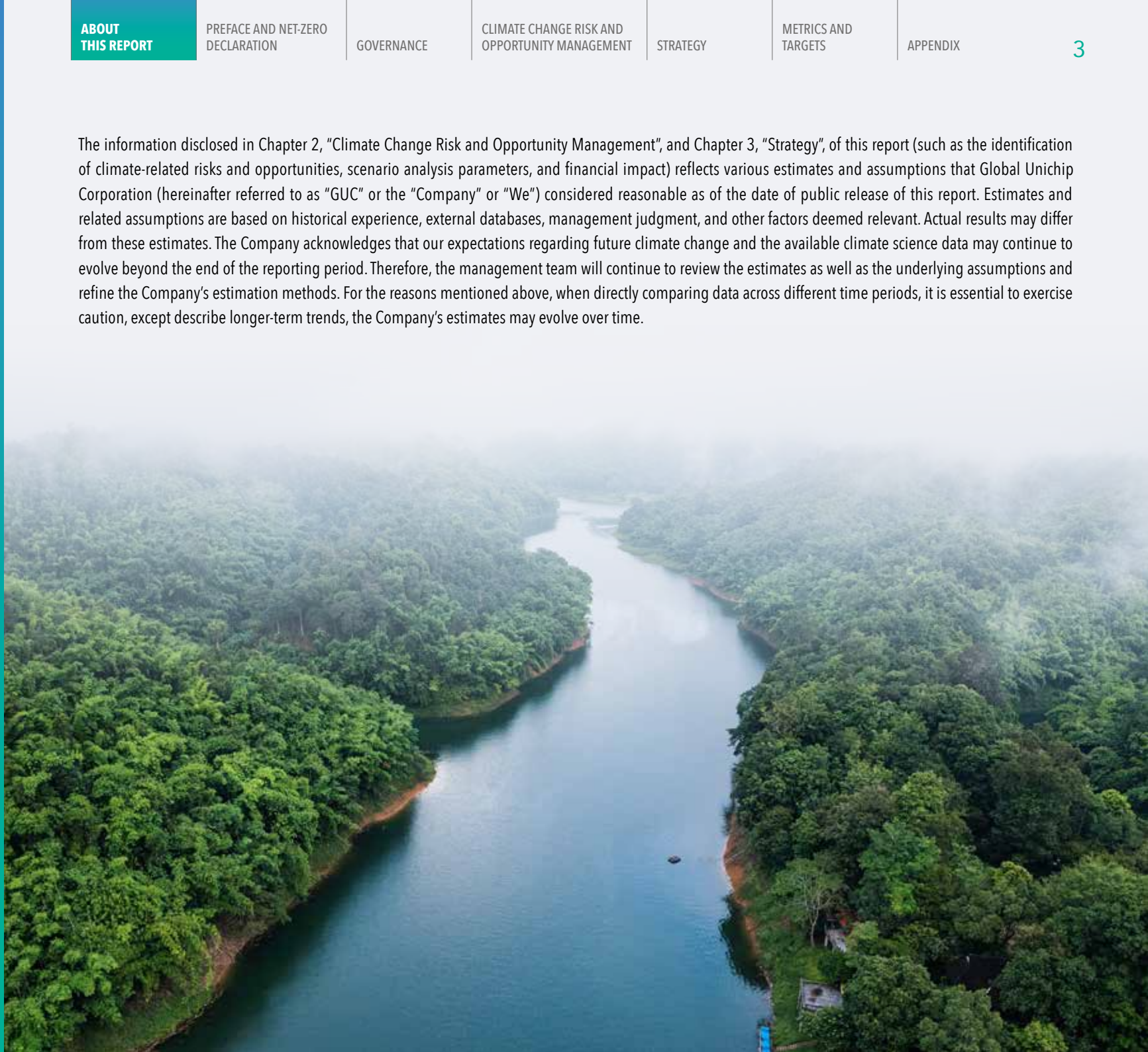
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ABOUT THIS REPORT

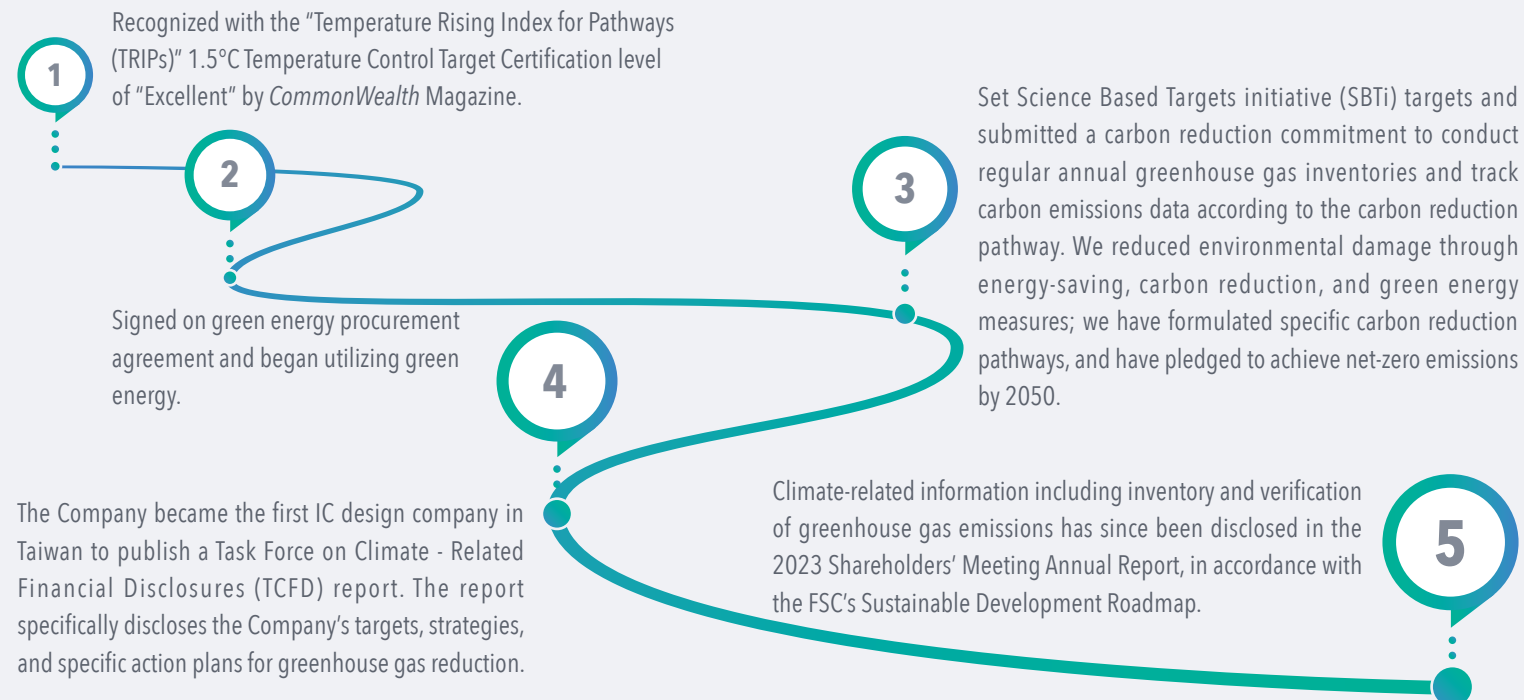
The information disclosed in Chapter 2, "Climate Change Risk and Opportunity Management", and Chapter 3, "Strategy", of this report (such as the identification of climate-related risks and opportunities, scenario analysis parameters, and financial impact) reflects various estimates and assumptions that Global Unichip Corporation (hereinafter referred to as "GUC" or the "Company" or "We") considered reasonable as of the date of public release of this report. Estimates and related assumptions are based on historical experience, external databases, management judgment, and other factors deemed relevant. Actual results may differ from these estimates. The Company acknowledges that our expectations regarding future climate change and the available climate science data may continue to evolve beyond the end of the reporting period. Therefore, the management team will continue to review the estimates as well as the underlying assumptions and refine the Company's estimation methods. For the reasons mentioned above, when directly comparing data across different time periods, it is essential to exercise caution, except describe longer-term trends, the Company's estimates may evolve over time.



PREFACE AND NET-ZERO

As global warming intensifies and extreme climate disasters become more frequent, they have caused significant economic losses for many countries and businesses. The World Economic Forum's Global Risks Report 2023 highlights extreme weather events caused by climate change as one of the foremost global risks. The world is facing an irreversible trend of climate change, and achieving net-zero carbon emissions has become an unavoidable and serious issue across all industries. The Company recognizes the impact of climate change on global society, the environment, and the economy. Therefore, we consider achieving net-zero carbon emissions by 2050 as our top priority goal to address the challenges posed by climate change. The Company's management team has completed its assessment of climate risks and developed specific plans for advancing toward net-zero carbon emissions. Regular progress reports on carbon reduction plan implementation are presented to the Board of Directors.

To mitigate the risks and impacts of climate change, the Company enhances our adaptability and resilience to climate change impacts by promoting various environmental conservation, energy-saving, and carbon reduction measures internally. The key goals achieved in 2023 are as follows:



To wisely respond to the operational risks posed by the implementation of climate change and environmental risk management emergency response measures, the Company will formulate reasonable, appropriate carbon reduction strategies through risk management and other internal control processes. Additionally, GUC will perform ongoing review of our progress toward net-zero emissions targets, in order to fulfill our commitment to corporate sustainability.

GOVERNANCE

1.1 Company Profile

GUC was founded in January 1998. Our headquarters is located in the Hsinchu Science Park in Taiwan. GUC is a leading application-specific integrated circuit (ASIC) design company. We provide comprehensive advanced ASIC services. Our goal is to offer world-class advanced ASIC services to assist forward-thinking IC manufacturers in enhancing their market leadership. The Company is driven by the pursuit of excellence. We aim to achieve outstanding performance in power consumption, speed, quality, yield, and on-time delivery and provide IC design services that meet our customers' needs.

GUC's Advanced ASIC Model™ is a custom IC design approach that combines design expertise, system knowledge, and manufacturing resources. It leverages advanced technology, low power consumption, and embedded CPU design capabilities. Additionally, it integrates critical production technologies through close collaboration with Taiwan Semiconductor Manufacturing Company (TSMC) and major packaging and testing companies. Through continuous development of advanced process design platforms and cutting-edge packaging technologies, this approach offers industry-leading high-performance, system-level design solutions. We also provide customers with a "One-Stop Shopping" design service, assisting them in achieving comprehensive System-on-Chip (SoC) solutions from the generation of design concepts to product mass production in the shortest possible time. We offer all essential services in the IC production process to our customers, allowing them to choose different services and delivery methods based on their specific

needs and technical capabilities. This not only helps lower the financial and technical barriers for small and medium-sized IC design companies but also enables system manufacturers to develop custom chips on their own. It facilitates product design that achieves hardware and software differentiation and shortens the product development cycle, and allows for rapid market entry, thereby creating higher added value for products.

The Company is listed on the Taiwan Stock Exchange: stock symbol 3443. The total paid-in capital of the Company is NT\$1.34 billion. We have a total of 885 employees. In 2023, our consolidated net revenue was NT\$26.2 billion, and the consolidated earnings per share were NT\$26.18.

The Company's mission encompasses various topics related to the economy, environment, and society. To ensure alignment with the responsibilities of relevant institutions and individuals, we deeply understand the increasing importance of corporate governance and organizational transparency. Therefore, in this report, we disclose the establishment and composition of the Company's highest governing body. We also ensure that the decisions of the top governance team align with GUC's mission. Through oversight and checks provided by the management team, we aim to achieve the ultimate goal of corporate governance: maximizing shareholder interests while reasonably defining and allocating the rights and responsibilities of all shareholders as well as the management team. Additionally, we aspire for GUC to be a positive force for social upliftment, seeking to benefit all stakeholders, including shareholders, employees, customers, suppliers, government agencies, and society as a whole.



Founded in
January
1998



The total paid-in capital of
the Company is
NT\$1.34 billion



We have a total of
885
employees



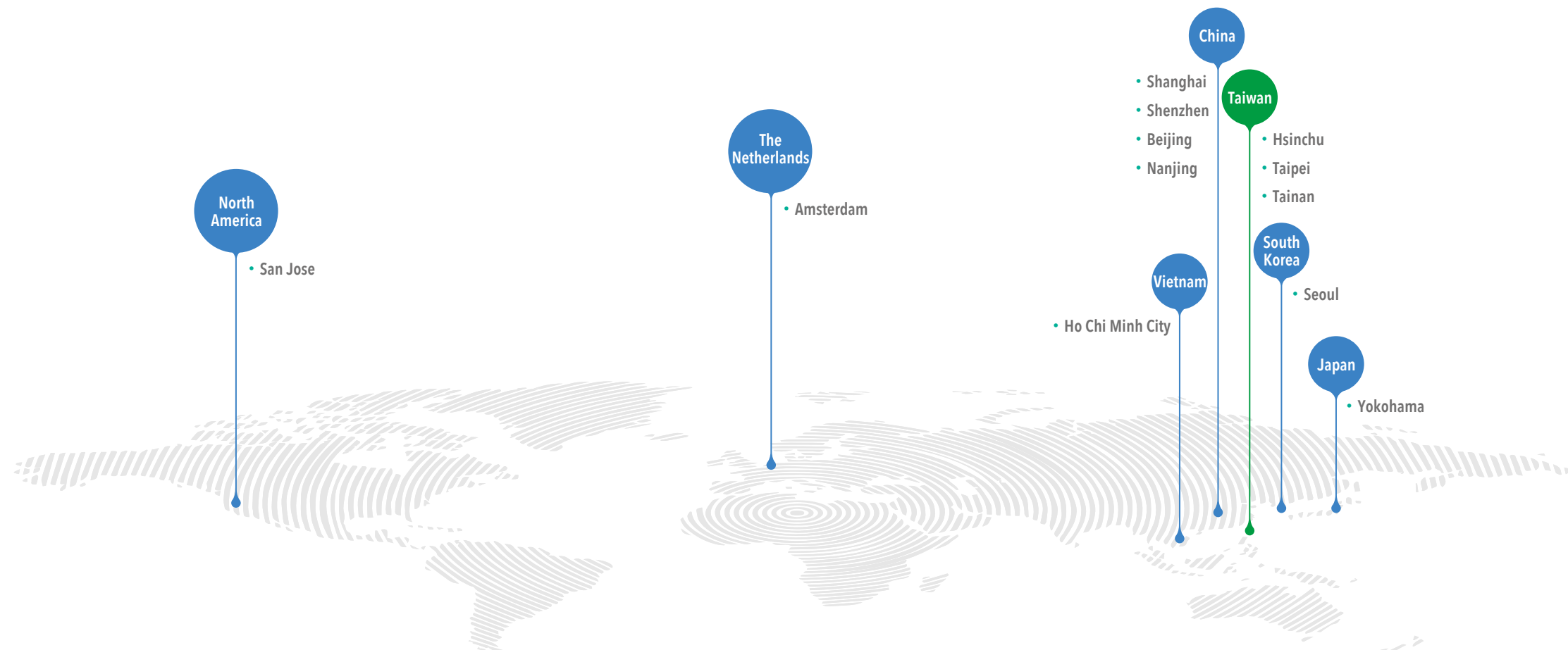
Consolidated net
revenue was
NT\$ 26.2 billion
in 2023



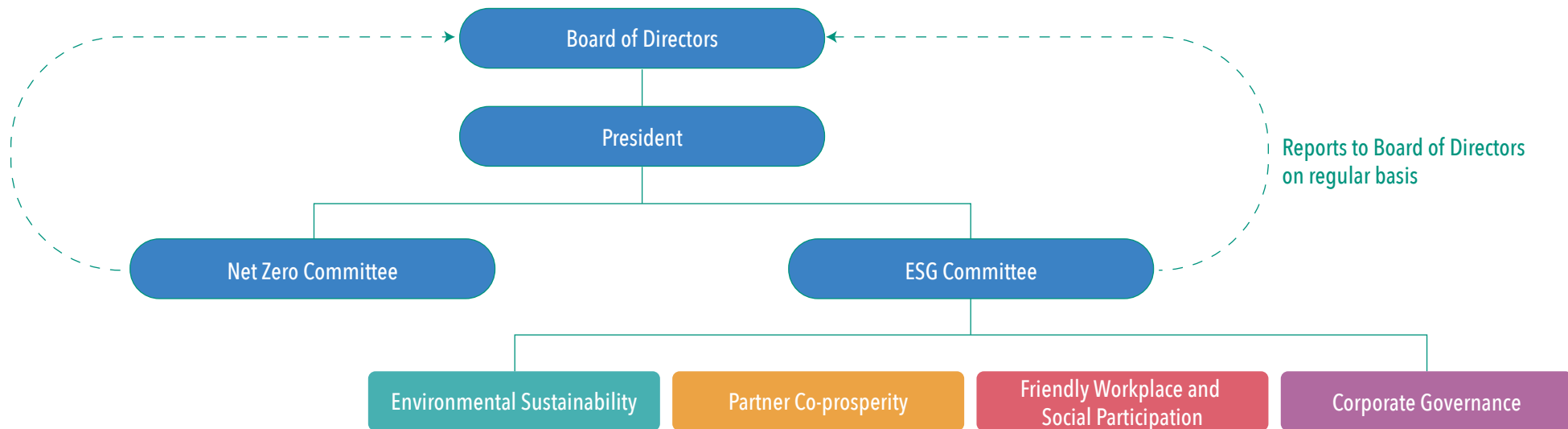
Consolidated earnings
per share were
NT\$ 26.18
in 2023

1.2 Organizational Boundaries

The organizational boundaries disclosed in this report encompass GUC's global operating sites and are consistent with the operating sites covered in our annual report. These boundaries include GUC's operating sites in Taiwan (Hsinchu Headquarters, Hsinchu Branch, Taipei Office, and Tainan Office) as well as overseas subsidiaries in North America, Japan, the Netherlands, South Korea, Vietnam, and China (Shanghai Office, Nanjing Office, Beijing Office, Shenzhen Office). For detailed information, please refer to the Company's official website or the [annual report](#).



1.3 Organization and Responsibilities



Board of Directors

The Board of Directors approved the Company's "Risk Management Policy" in 2010, which serves as the highest guiding principle for risk management within the Company. Various management units conduct regular assessments and reviews of risks and report the assessment results to the Operation Management Risk Committee. The significant risks are then summarized by the President and reported to the Board of Directors on a regular basis. Climate change and environmental risk management emergency response measures have been incorporated into the Company's "Risk Management Policy". We have also established a Sustainable Development Committee (ESG Committee) and a Net Zero Committee under the Board of Directors and the President. These committees assist in promoting corporate sustainability and climate change-related management initiatives. An executive secretary is appointed to regularly report the annual ESG goals and progress or outcomes of climate change risk improvement to the Board of Directors.

GUC has signed on the Science Based Targets initiative (SBTi), and declared our commitment to realizing the scenario in which the Earth's average temperature does not rise by more than 1.5°C as compared to the 2022 baseline, and the goal of reducing Scope 2 emissions by 42% and Scope 3 emissions by 25% by 2030. We have also set the target of reducing total greenhouse gas emissions by 90% by 2050. The Board of Directors will review the progress of implementing these carbon reduction targets on a regular basis.

To enhance the Board's understanding of ESG and climate governance issues and keep them informed about the latest developments, the Company will arrange for external experts to provide training to the Board members as needed. Data concerning the annual training and continuing education of directors (including independent directors) are disclosed in the annual report and made available on the Company's website and the Market Observation Post System for investors to view.

Sustainable Development (ESG) Committee

The Company established the "Corporate Social Responsibility (CSR) Promotion Committee" in 2015 and renamed it to the "Sustainable Development Committee" (or ESG Committee) in 2021. The ESG Committee's primary duties and responsibilities are as follows:

- 1 Propose a mission/vision for sustainable development, and formulate policies/systems/related management guidelines for sustainable development.
- 2 Incorporate sustainable development plan goals into the Company's operating activities and directions for development, and approve specific plans for promoting sustainable development.
- 3 Ensure timely and accurate disclosure of information related to sustainable development.

To ensure the implementation of the ESG Committee's annual plan objectives, the Company has established a top-down, cross-functional operating model. The ESG Committee serves as a platform for cross-departmental communication, with representatives appointed from various relevant functional departments, including Human Resources, Investor Relations, Legal Affairs, Operations, Sales, Occupational Safety and Environmental Protection, Finance and Accounting, Customer Service, Research and Development (R&D), and Design Services. Regular meetings are held each year to promote related activities, continuously review implementation effectiveness, and seek ongoing improvements. To ensure the smooth operation of the ESG Committee, it is led by President Sean Tai (who also serves as a director of the Company). Additionally, an ESG Executive Secretary is appointed by the Board of Directors and is responsible for tracking the implementation of sustainability development plan goals outlined by various functional departments. The Executive Secretary also provides annual reports to the Board of Directors, including:



The ESG Committee is also responsible for addressing climate change issues and identifying potential impacts of these issues both internally and externally. This includes conducting climate change risk identification assessments and developing climate adaptation strategies. The ESG Executive Secretary reports annually to the ESG Committee on ESG performance for the year as well as climate change adaptation goals for the following year, and reports to the Board of Directors on measures taken to address climate change risks.

Net Zero Committee

To further enhance the principles of sustainable governance, the Company established the Net Zero Committee in 2022. The committee meets twice a year, with President Sean Tai as the Chairman of the committee overseeing related matters. The committee's primary responsibilities are as follows:

- 1 Develop detailed implementation schedules for projects, and periodically monitor the work progress. Specific tasks include the following:
 - (1) Energy management: Electricity conservation, generation, procurement, etc.
 - (2) Supply chain management: Work with major suppliers to reduce carbon emissions across the supply chain.
 - (3) Certification management: Align with international standards; implement carbon reduction in accordance with SBTi guidelines; issue TCFD reports.
- 2 Formulate talent training, strategic goals, control mechanisms, internal and external verification plans, greenhouse gas inventory plan, and reporting plan.
- 3 Assist the Board of Directors in supervising and controlling interim objectives.

1.4 Remuneration System

In terms of the relationship between ESG performance and compensation, managers in all functional units of the Company, including R&D, Design Services, Sales, Customer Service, Operations, Quality Control, Occupational Safety and Environmental Protection, Legal Affairs, Finance and Accounting, and Human Resources, have established ESG Key Performance Indicators (KPIs) related to their responsibilities based on annual plan objectives. They also oversee the implementation of these KPIs by their respective unit supervisors. The weight assigned to the established ESG KPIs (including indicators for climate change performance) typically ranges from 5% to 20% of the overall KPIs for managers. During the annual performance assessment, manager compensation and rewards are influenced by the assessment results, reflecting their performance in achieving ESG-related goals.

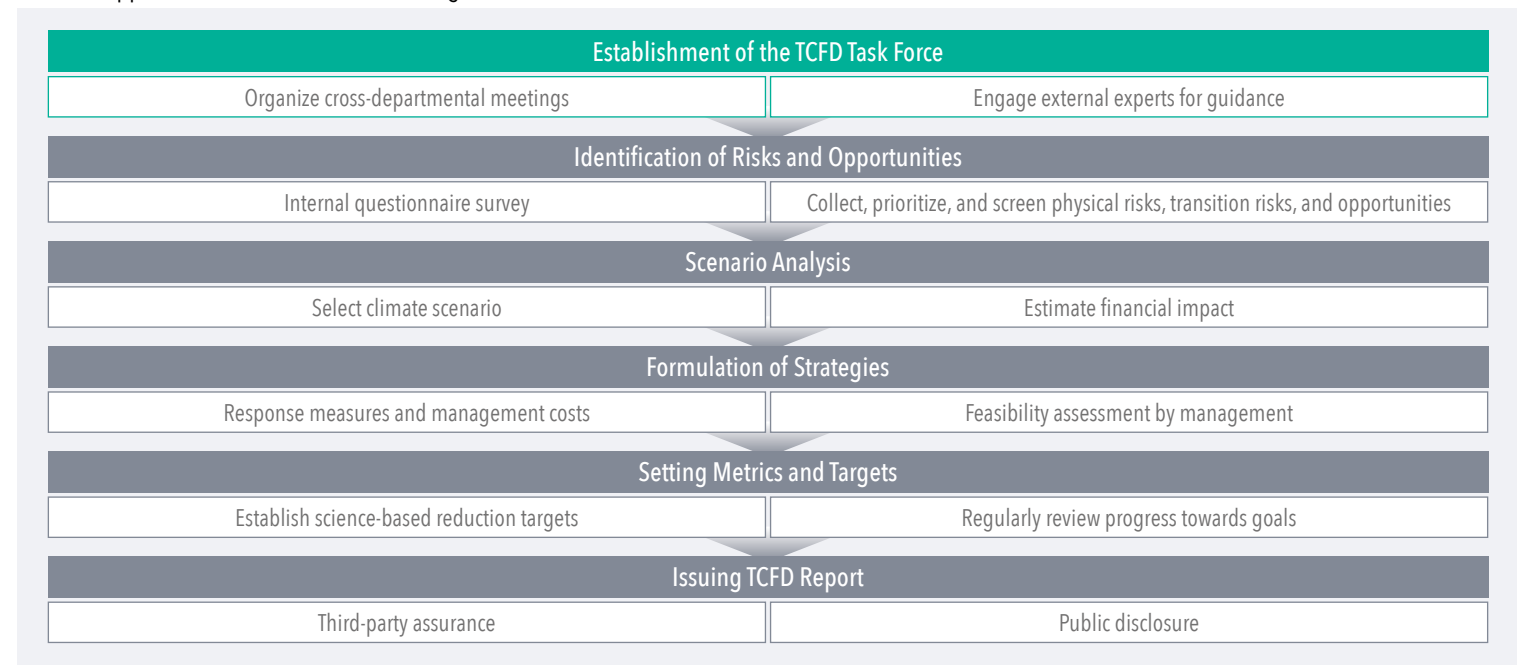
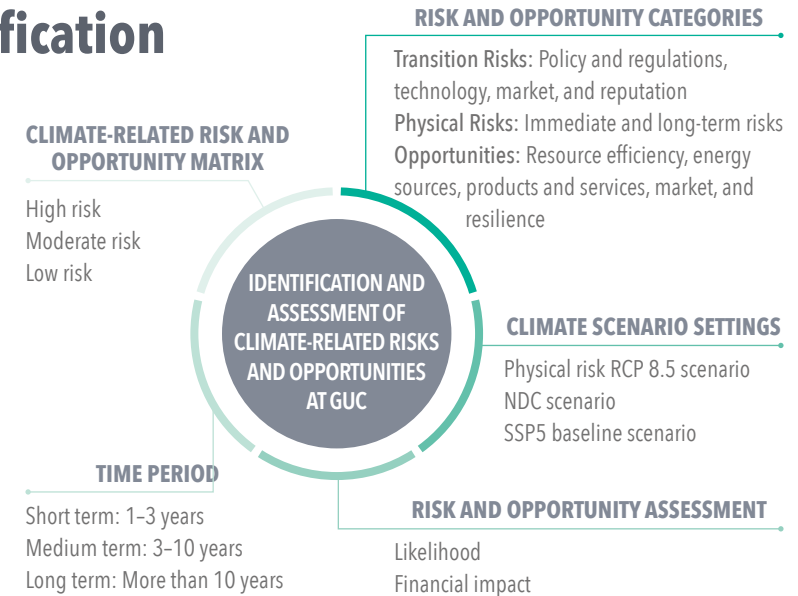


CLIMATE CHANGE RISK AND OPPORTUNITY MANAGEMENT

2

2.1 Risk and Opportunity Identification and Assessment Process

To mitigate the impact of climate change, the Company has established a cross-departmental TCFD Task Force under the coordination of the Net Zero Committee. This task force brings together senior executives from various units for cross-departmental communication. They consider climate change issues, the Company's characteristics, as well as its relationship with the supply chain, and refer to the transition risk, physical risk, and opportunity categories under the TCFD framework to identify significant risks and opportunities. Subsequently, they apply different scenario analyses and assessments to develop response strategies that mitigate potential financial losses due to risks and, in some cases, turn challenges into opportunities, creating greater benefits for the Company. Furthermore, climate change risk management has been incorporated into the Company's Risk Management Policy. The process for identifying risks and opportunities related to climate change is as follows:



Risk and Opportunity Categories

Members of the cross-departmental TCFD Task Force identified the following climate-related risks and opportunities based on the TCFD framework.

CATEGORY	RISKS AND OPPORTUNITIES	
TRANSITION RISK	Policy and regulations	Government-imposed carbon fees on businesses Renewable energy regulations
	Market	Changes in customer behavior
	Technology	Investment in new technologies Transition to low-carbon technology
	Reputation	Reputation damage
PHYSICAL RISK	Immediate	Tropical cyclones (Typhoons) Water scarcity
	Long-term	Water resource pressure Global warming and rising average temperatures
CLIMATE OPPORTUNITY	Energy sources	Utilizing low-carbon energy Using energy storage systems
	Resource efficiency	Using energy-saving equipment
	Products/services	Developing and/or increasing low-carbon products and services
	Resilience	Enhancing resilience to drought and water scarcity

Risk and Opportunity Assessment

When identifying climate-related risks and opportunities, the Company uses its "Risk Management Procedure" to determine significant risks by multiplying the defined severity of financial impact by the likelihood of risk occurrence¹. The Company categorizes likelihood and financial impact into five levels each (please refer to the table below), where the risk value is calculated as: Risk Value = Likelihood × Financial Impact (please refer to the table below).

LIKELIHOOD ASSESSMENT			FINANCIAL IMPACT ASSESSMENT		
LIKELIHOOD OF OCCURRENCE	EXPECTED OCCURRENCE FREQUENCY	SCORE	FINANCIAL IMPACT SEVERITY	IMPACT AMOUNT (NTD)	SCORE
Very High	Within 1 year	5	Very High	NT\$50,000,000 ≤ Impact Amount	5
High	1–3 years	4	High	NT\$30,000,000 ≤ Impact Amount < 50,000,000	4
Moderate	3–6 years	3	Moderate	NT\$15,000,000 ≤ Impact Amount < 30,000,000	3
Low	6–9 years	2	Low	NT\$3,000,000 ≤ Impact Amount < 15,000,000	2
Very Low	Over 10 years	1	Very Low	Impact Amount < NT\$3,000,000	1

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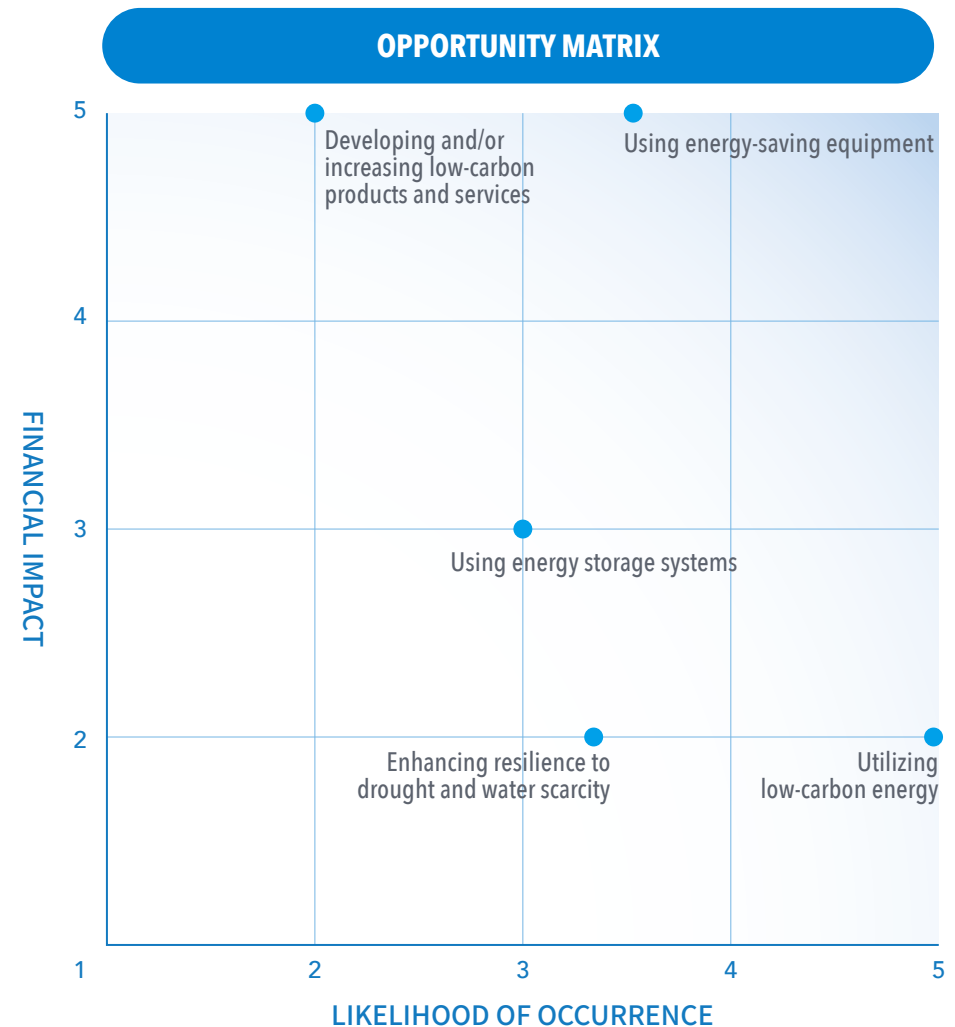
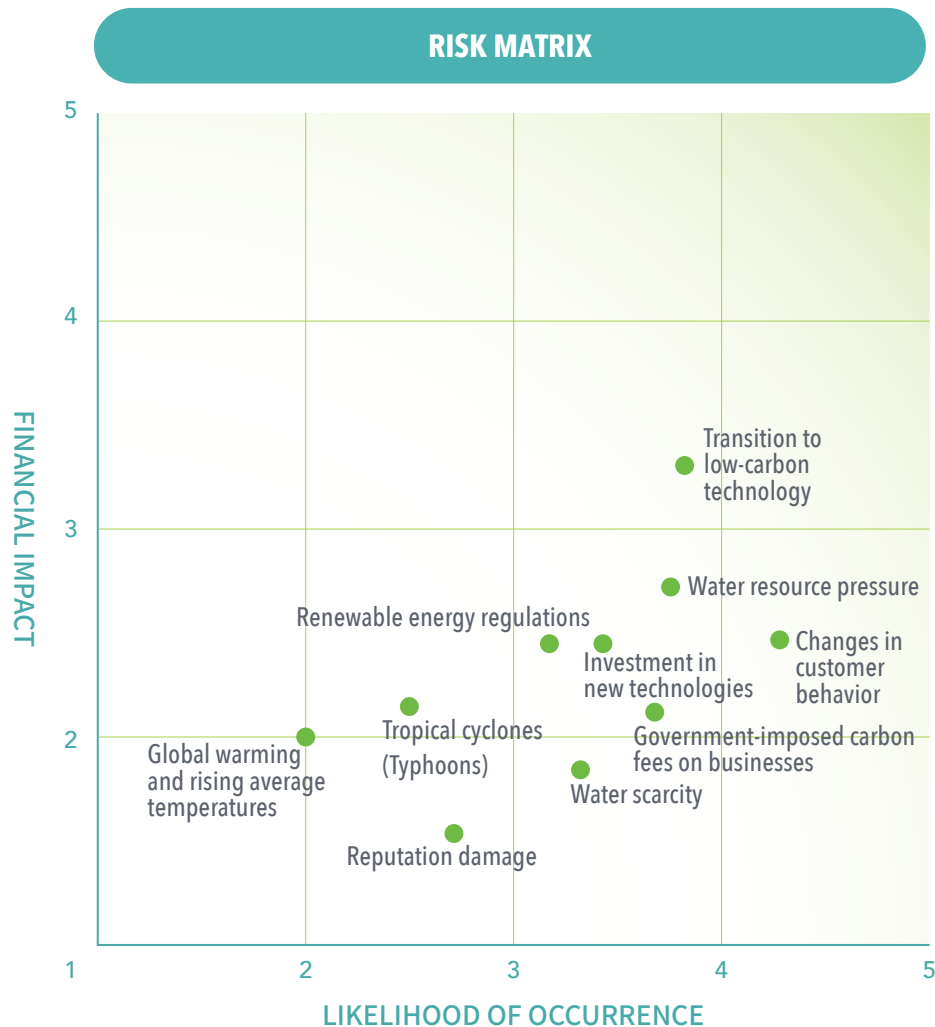
RISK TYPE	RISK VALUE
High Risk	12 ≤ Risk Value ≤ 25
Moderate Risk	5 ≤ Risk Value < 12
Low Risk	Risk Value < 5

=

¹ The "Risk Management Procedure" (hereinafter referred to as the Procedure) defines the likelihood of risk occurrence based on probability, frequency, or occurrence. The Company uses frequency to express the magnitude of likelihood. According to the Procedure, the time spans for defining frequency include occurred/one month/one quarter/one year/not occurred. However, for climate-related risks and opportunities, the time span measured often encompasses several years. Therefore, the time spans have been adjusted to within 1 year, 1–3 years, 3–6 years, 6–9 years, and 10 years and above to facilitate identification.









Climate-related Risk and Opportunity Matrix

Members of the cross-departmental TCFD Task Force assessed the likelihood and financial impact of various climate-related risks and opportunities through an internal questionnaire. The average risk values were calculated from the questionnaire responses and used to create the risk and opportunity matrix (please refer to the diagram below).



2.2 Results of Climate Change Risk and Opportunity Identification

Based on the results of the risk and opportunity matrix, we initially selected risks with a value of 5 or higher and opportunities with a value of 10 or higher, for a total of five transition risks, three physical risks, and three climate opportunities. After further consideration by the cross-departmental TCFD Task Force and external experts, and taking the Company's characteristics as well as its relationship with the supply chain into account, we removed and consolidated the risks and opportunities to identify two significant transition risks and two significant climate opportunities. The details are provided in the table below:

CATEGORY	RISKS AND OPPORTUNITIES		INCLUDED	EXPLANATION
TRANSITION RISK	Policy and regulations	Government-imposed carbon fees on businesses		<ul style="list-style-type: none"> After consideration by the TCFD Task Force, these two risks have been combined into one risk, "Renewable Energy Regulations and Carbon Fees".
		Renewable energy regulations		
	Market	Changes in customer behavior		
	Technology	Investment in new technologies		<ul style="list-style-type: none"> Transition to low-carbon technology and its investment is the responsibility of the suppliers. The Company is an order-based IC design service provider, and all wafer products are outsourced for production; therefore, the manufacturing costs are passed on to customers.
		Transition to low-carbon technology		
PHYSICAL RISK	Immediate	Tropical cyclones (Typhoons)		<ul style="list-style-type: none"> The risk of typhoons, floods, or droughts affecting the physical operating facilities of the Company is low, and the cost of such risks can be transferred through insurance. The Company outsources production to tsmc, which conducts its own assessment of drought/flood risks in manufacturing facilities and develops and implements risk mitigation measures. For example, tsmc has established a comprehensive water monitoring mechanism and emergency response procedures, and tsmc conducts regular drills.
		Water scarcity		
	Long-term	Water resource pressure		
CLIMATE OPPORTUNITY	Energy sources	Utilizing low-carbon energy		
	Resource efficiency	Using energy-saving equipment		
	Products/ services	Developing and/or increasing low-carbon products and services		<ul style="list-style-type: none"> The Company provides contracted design and manufacturing services; we do not have our own product line.

Subsequently, we will carry out financial impact simulations through scenario analysis and carbon pricing models. Based on this, we will formulate response strategies and short, medium, and long-term goals. The Net Zero Committee will re-identify significant climate risks and opportunities every 3 years as a general practice. However, if there are indications or information suggesting potential changes in the originally identified significant climate risks and opportunities, the Net Zero Committee may call upon the TCFD Task Force to carry out the identification process as needed.

2.3 Summary of the Impact of Risks and Opportunities on the Company

The Company has conducted a comprehensive assessment of global sustainability trends and operational development goals, and discloses the proposed response measures as follows:

RISK CATEGORY	RISKS	RISK DESCRIPTION	RESPONSE MEASURES
TRANSITION RISK	Policy and Regulations - Renewable Energy Regulations and Carbon Fees	<p>According to Article 12 of the Renewable Energy Development Act, heavy electricity users are obligated to increase their rate of renewable energy usage. If their chartered capacity exceeds a certain capacity, they must install a certain capacity of renewable energy or energy storage equipment. Those unable to comply with these requirements may choose to purchase green energy (renewable energy certificates) or pay monetary substitution to the competent authority. The Company has a chartered capacity of 800 kW, which is currently below the 5,000 kW specified in the Renewable Energy Development Act. However, it's worth noting that there have been proposals from advocacy groups to lower the threshold from 5,000 kW to 800 kW. Additionally, various counties and cities in Taiwan may have their own local ordinances that set thresholds for heavy electricity users, such as the requirement in the Taichung City Self-Government Ordinance for enterprises with a capacity of 800 kW or more to install renewable energy capacity equivalent to 10% of their electricity consumption within 3 years from the date of announcement. Therefore, the Company may still need to comply with such requirements in the future.</p> <p>Furthermore, the Climate Change Response Act stipulates net-zero emissions by 2050 as the national long-term greenhouse gas reduction target; and a carbon fee to be imposed on enterprises that generate more than 25,000 metric tons of greenhouse gases, with an estimated fee of NT\$300+ per metric ton at the start.</p>	<p>The Company is actively implementing risk mitigation measures to reduce its organizational carbon emissions. These measures are outlined as follows:</p> <ol style="list-style-type: none"> 1. In alignment with the Science-Based Targets (SBTs) for carbon reduction, the Company has started to purchase green energy, beginning in 2023. 2. The Company plans to upgrade or replace existing equipment with more energy-efficient alternatives. 3. The Company conducts annual greenhouse gas inventories and undergoes third-party external verification. GUC submitted our reduction targets to SBTi in 2023, so starting in 2023, greenhouse gas inventories will be carried out as per the GHG Protocol and in accordance with SBTi guidelines.
	Market - Changes in Customer Behavior	Customers are requesting the monitoring and reduction of carbon emissions, making it necessary to commit to joining SBTi or other climate initiatives. Non-compliance could impact future revenue growth momentum.	Engage in professional advisory resources for SBTi.

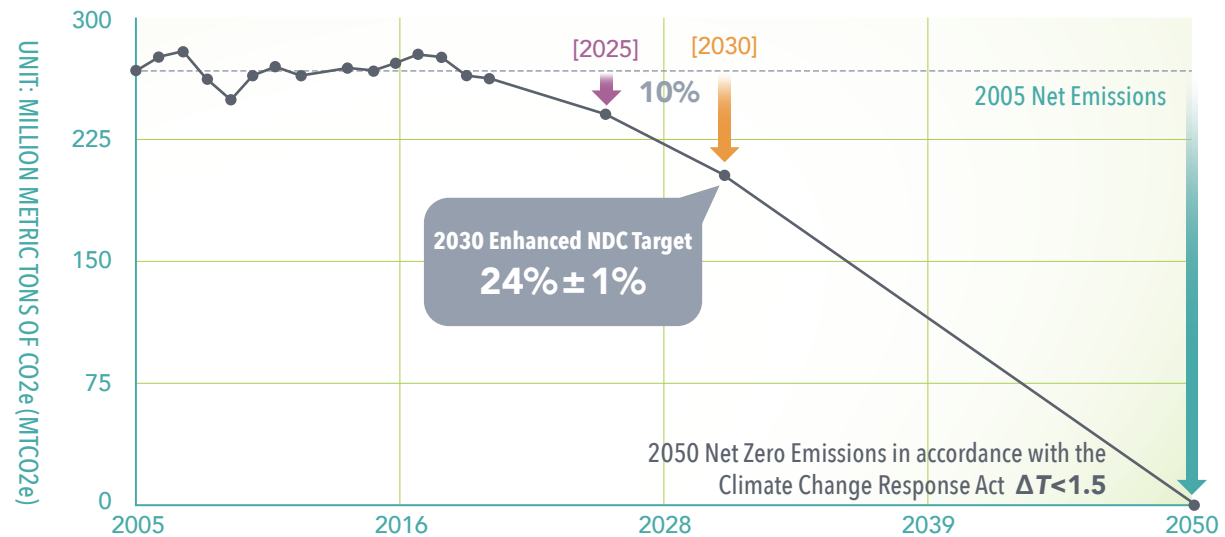
OPPORTUNITY CATEGORY	OPPORTUNITIES	OPPORTUNITY DESCRIPTION	RESPONSE MEASURES
ENERGY SOURCES	Utilizing Low-carbon Energy	The green energy generated by solar panels installed will reduce the Company's operating expenses for electricity and carbon fees.	To further reduce the Company's carbon footprint, GUC will continuously assess the size, location, legality, and safety of installing solar photovoltaic systems at each office, in order to generate solar electricity for self-use and increase the use of clean energy. By increasing the proportion of clean energy, GUC will further reduce our carbon footprint.
RESOURCE EFFICIENCY	Using Energy-saving Equipment	Continuous promotion of energy efficiency management practices by implementing initiatives such as upgrading building lighting, air conditioning equipment, etc. will reduce the Company's electricity and carbon operating expenses.	<ul style="list-style-type: none"> • Energy-saving improvements for IT rooms (replacing HDDs with SSD storage equipment). • Replacement of adsorption-dryer-based air compressor systems with more energy-saving alternatives. • Complete replacement of traditional lighting with LED fixtures. • Energy-saving improvements for the chiller system.

3.1 Climate Change Scenario Setting

The Company conducts scenario setting based on the identified significant risks and opportunities. Since climate-related risks and opportunities impact future strategies and financial planning, the Company adopts the SSP5 Baseline Scenario to analyze and assess the resilience of its climate strategy.

RISK TYPE	SCENARIOS FOR RISK AND STRATEGY ASSESSMENT	DETAILS
TRANSITION RISK	<ul style="list-style-type: none"> 1.5°C Scenario Taiwan's Pathway to Net-Zero Emissions in 2050 Taiwan's 2030 Nationally Determined Contribution (NDC) Carbon emissions growth rate estimated based on the SSP5 Baseline Scenario² Carbon fee calculated at NT\$300 per metric ton as estimated by the Ministry of Environment. Additionally, there is a penalty of NT\$1.5 million for not meeting the requirements of usage, as stipulated in the Renewable Energy Development Act. 	In December 2022, the National Development Council announced the interim goals and key strategies for the 2050 net-zero transition. They proposed a 25% reduction target in greenhouse gas emissions by 2030 as part of the Nationally Determined Contribution (NDC); the Company then assesses the potential operational impacts based on that reduction target. Additionally, the worst-case scenario for carbon emissions growth rate was estimated using the SSP5 Baseline Scenario.

Taiwan's 2030 NDC³



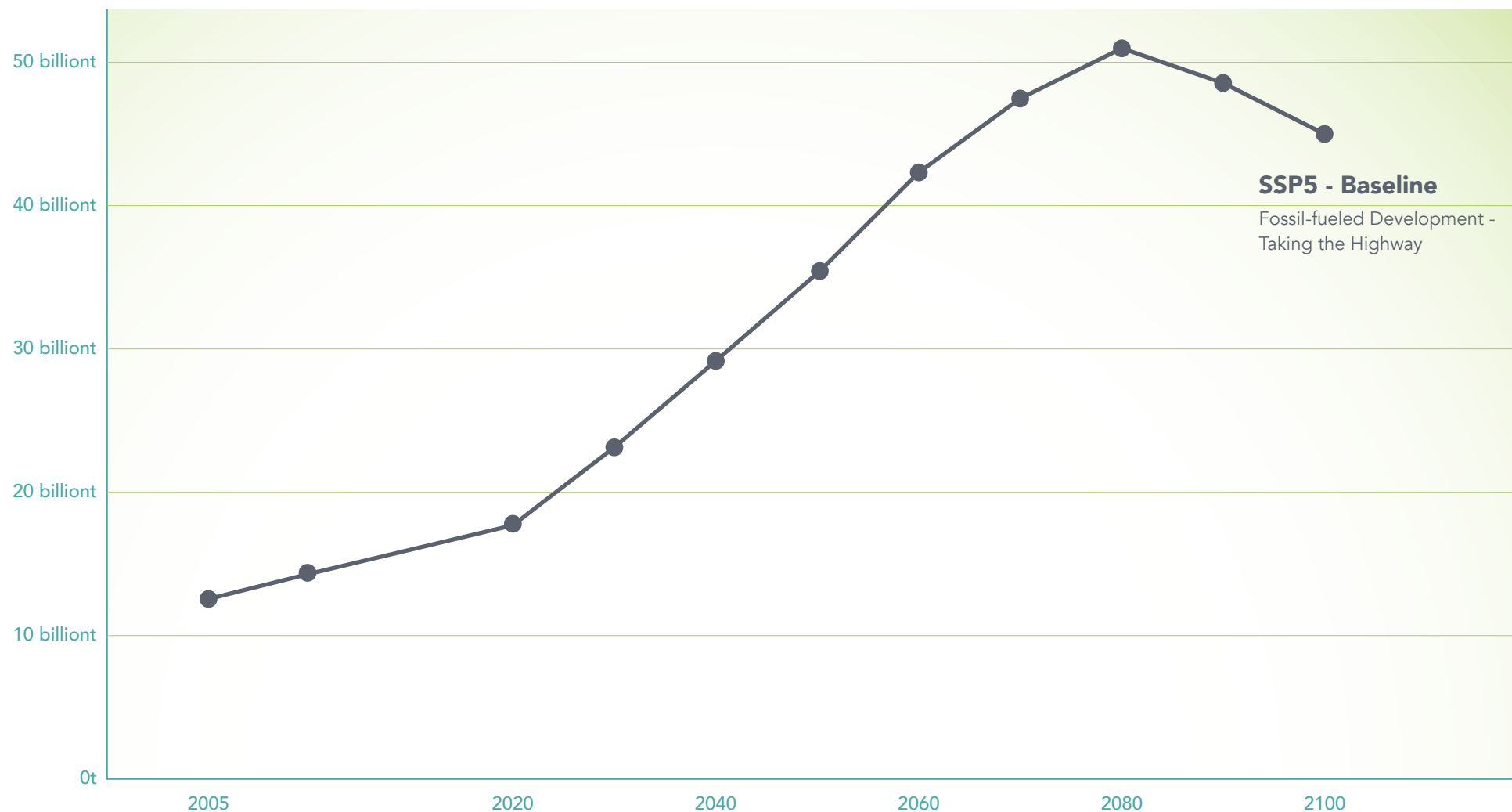
² Source: <https://ourworldindata.org/explorers/ipcc-scenarios>

³ Source: <https://ws.ndc.gov.tw/Download.ashx?u=LzAwMS9hZG1pbmlzdHJhdG9yLzEwL3JlbGZpbGUvNzEzMi8zNjQ3Ni9kMzRmZjE1Yy03NGRlLTQ4MmYtYjEwZi03MzE4ZTg5MzE4MmUucGRm&n=MjAyMjE5Mjgt5ZyL55m85pyD57Ch5aCxx3Y2LnBkZg%3D%3D&icon=..pdf>

Estimated Carbon Emission Growth Rate

(based on the SSP5 Baseline Scenario and carbon fees of NT\$300 per metric ton as estimated by the Ministry of Environment)

Carbon dioxide emissions from Asia



Data source: Riahi et al. (2017). The Shared Socioeconomic Pathways and their energy, land use, and greenhouse gas emissions implications: An overview, Global Environmental Change

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Additionally, although physical risks were not identified as significant risks in this assessment, preventive risk assessments were still conducted through the following scenarios. Within the RCP8.5 scenario of extremely high greenhouse gas emissions, the probability of future flooding disasters, extreme high temperatures, and an increased number of consecutive rainless days is expected to rise. The impact of flood risk and extreme high temperature and drought risk on operations at the Company's headquarters is as follows.

RISK TYPE	SCENARIOS FOR RISK AND STRATEGY ASSESSMENT	DETAILS
PHYSICAL RISK	<ul style="list-style-type: none"> National Science and Technology Center for Disaster Reduction - Flood Disaster Potential Map Rainfall in a 24-hour period reaches 650 mm Taiwan Climate Change Projection Information Platform (AR6 Statistical Downscaling Version) HWDI (Heat wave duration index)⁴ CDD (Maximum number of consecutive dry days)⁵ 	Simulate changes in flood disasters, extreme high temperatures, and the number of consecutive days without rainfall in a year in the context of the RCP8.5 extremely high greenhouse gas emissions scenario.

Flood Risk

According to the National Science and Technology Center for Disaster Reduction's Flood Disaster Potential Map, if the 24-hour accumulated rainfall reaches 650 mm, it will have no impact on operations at the Company's headquarters⁶.



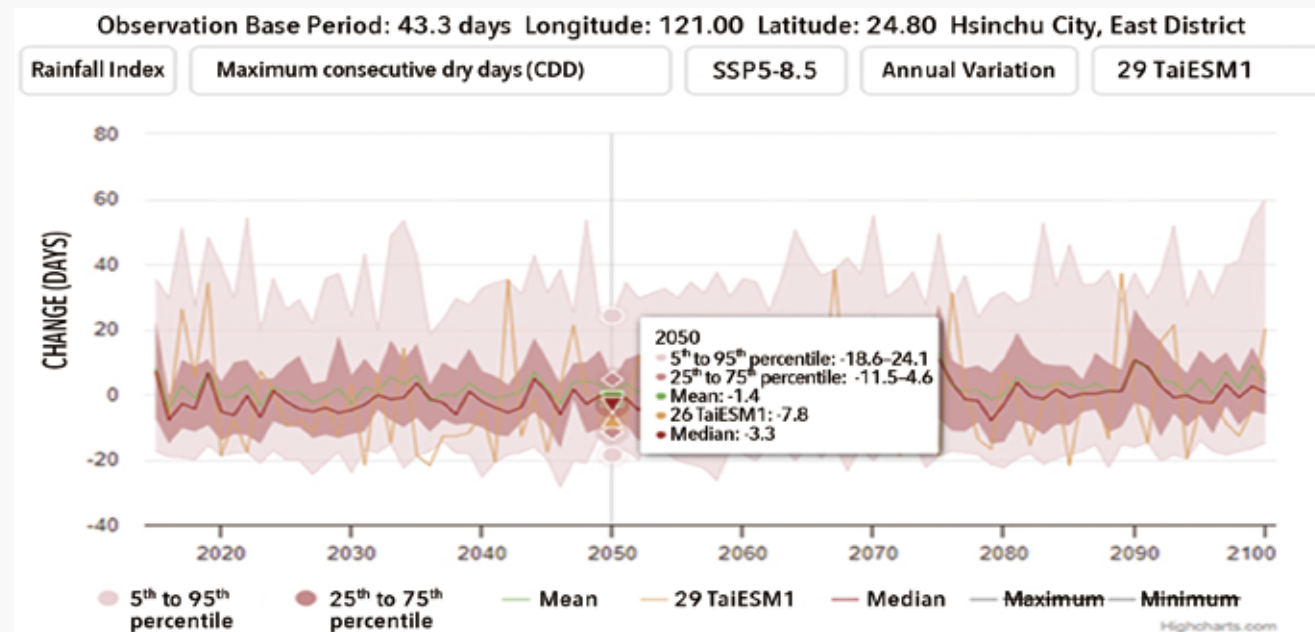
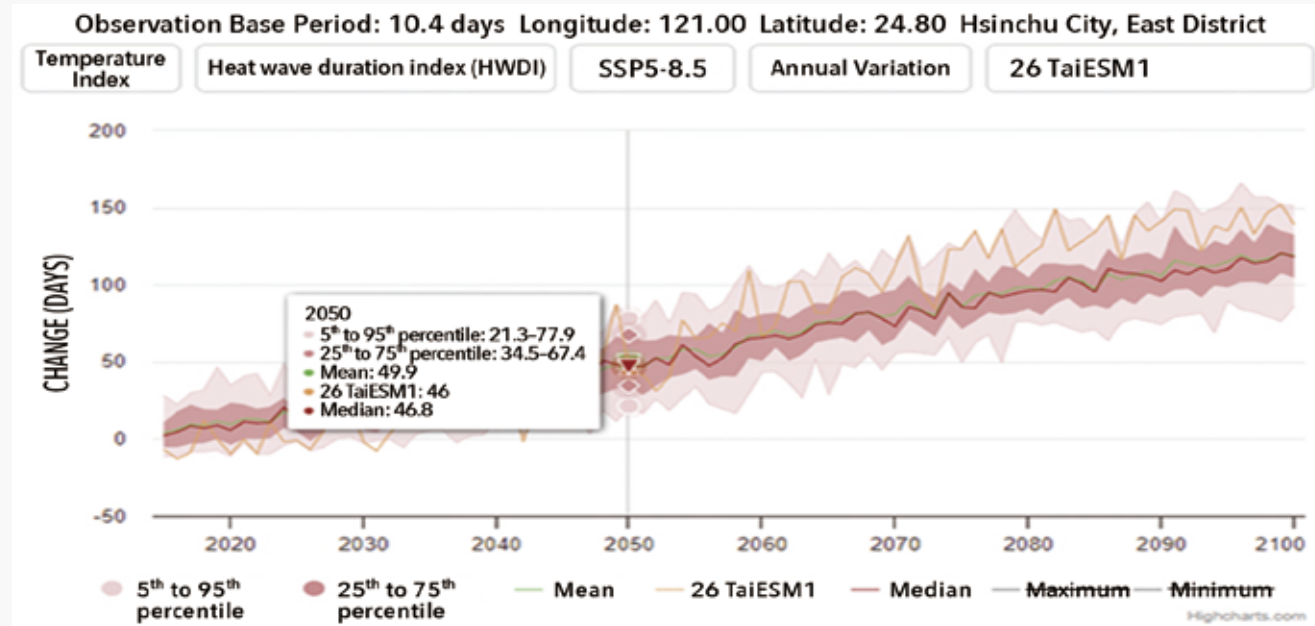
⁴ HWDI (Heat wave duration index): In units of days, the total number of days in a year where the daily maximum temperature is higher than the 95th percentile of the baseline for 3 or more consecutive days.

⁵ CDD (Maximum number of consecutive dry days): In units of days, the longest consecutive number of days in a year with daily rainfall less than 1 millimeter.

⁶ Flood risk has only been simulated and assessed for GUC's Hsinchu headquarters.

Extreme High Temperature and Drought Risk

Data from the Taiwan Climate Change Projection Information Platform (AR6 Statistical Downscaling Version) indicate that extreme high temperature may lead to brief power shortages. However, the Company has a robust uninterruptible power supply system and data backup measures in place, which mitigates the risk to our operations. Additionally, our core business is IC design services, and we are not involved in IC production activities. Therefore, the operational risk of production line shutdown due to lack of rain is not within the scope of consideration for this major risk assessment.



3.2 Financial Assessment of Climate-Related Risks and Strategies

After identifying climate-related risks and opportunities that are significant, a financial impact assessment is conducted based on the corresponding scenarios mentioned previously.

Climate-related Significant Risks

RISK TYPE	RISKS	TIME FRAME	LIKELIHOOD OF OCCURRENCE	FINANCIAL IMPACT	RISK LOCATION
TRANSITION RISK	POLICY AND REGULATIONS Renewable Energy Regulations and Carbon Fees	Medium-term	Normal	Very High	The Company Itself
	MARKET Changes in Customer Behavior	Medium-term	Normal	Very High	Customer

Climate-related Significant Opportunities

OPPORTUNITY CATEGORY	OPPORTUNITIES	TIME FRAME	LIKELIHOOD OF OCCURRENCE	FINANCIAL IMPACT	RISK LOCATION
CLIMATE OPPORTUNITY	ENERGY SOURCES Utilizing Low-carbon Energy	Short-term	Very Likely	Low	The Company Itself
	RESOURCE EFFICIENCY Using Energy-saving Equipment	Short-term	Very Likely	Low	The Company Itself

Transition Risk - Policy and Regulations Renewable Energy Regulations and Carbon Fees

Risk and Strategy Details	<ul style="list-style-type: none"> According to Article 12 of the Renewable Energy Development Act, heavy electricity users are obligated to increase their proportion of renewable energy usage. If their chartered capacity exceeds a certain capacity, they must install a certain capacity of renewable energy or energy storage equipment. Those unable to comply with these requirements may choose to purchase green energy (renewable energy certificates) or pay monetary substitution to the competent authority. Failure to comply may result in fines ranging from NT\$300,000 to NT\$1.5 million. The Company has a chartered capacity of 800 kW, which is currently below the 5,000 kW specified in the Renewable Energy Development Act. However, it's worth noting that there have been proposals from advocacy groups to lower the threshold from 5,000 kW to 800 kW. Additionally, various counties and cities in Taiwan may have their own local ordinances that set thresholds for heavy electricity users, such as the requirement in the Taichung City Self-Government Ordinance for enterprises with a capacity of 800 kW or more to install renewable energy capacity equivalent to 10% of their electricity consumption within 3 years from the date of announcement. Therefore, the Company may still need to comply with such requirements in the future. Purchasing Green Energy: In 2023, the Company purchased 1,469 kWh of green power for a total of NT\$8,560 in 2023. To achieve the goal of reducing Scope 2 emissions by 42% by 2030 (compared to the base year of 2022), the additional cost of purchasing green energy instead of gray energy from 2023–2030 is estimated to be approximately NT\$25.02 million. Installing Solar Panels: Please refer to the Low-carbon Climate Opportunity - Energy Sources: Utilizing low-carbon energy Using Energy-Efficient Assets: Please refer to the Low-carbon Climate Opportunity - Resource Efficiency: Using energy-saving equipment
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FINANCIAL IMPACT TYPES	YEAR	FINANCIAL IMPACT (NT\$1,000/YEAR)	FINANCIAL IMPACT DETAILS
Financial Impact Before Risk Mitigation	2025	4,763	INCREASE IN COST: Carbon fees are charged at NT\$300 per metric ton, and the Company's total carbon emissions are estimated based on the baseline scenario of SSP5's greenhouse gas emissions growth rate in the Asian region. Additionally, there is a penalty of NT\$1.5 million for not meeting the requirements of usage, as stipulated in the Renewable Energy Development Act. The financial impact values are from the carbon fees and fines that would have been incurred if the Company had not taken appropriate measures.
	2030	5,156	
	2050	6,453	
Financial Impact After Risk Mitigation	2025	5,582	To meet our goals of reducing electricity carbon emissions by 42% by 2030 and net-zero emissions by 2050, the Company is planning to purchase 20 million kWh of green energy between 2023 and 2030. Starting from 2031, an annual increase of 1,088,500 kWh of green energy until 2050 (25.82 million kWh) will reduce carbon fees and excess emissions costs.
	2030	7,631	
	2050	34,169	

Transition Risk Market: Changes in Customer Behavior

Risk and Strategy Details

- Customers are requesting the monitoring and reduction of carbon emissions, making it necessary to commit to joining SBTi or other climate initiatives. Non-compliance could impact future revenue growth momentum.
- The introduction of SBTi and other climate initiatives in 2023 incurred advisory costs of NT\$1.29 million.
- 2024 SBTi verification costs were US\$14,500.

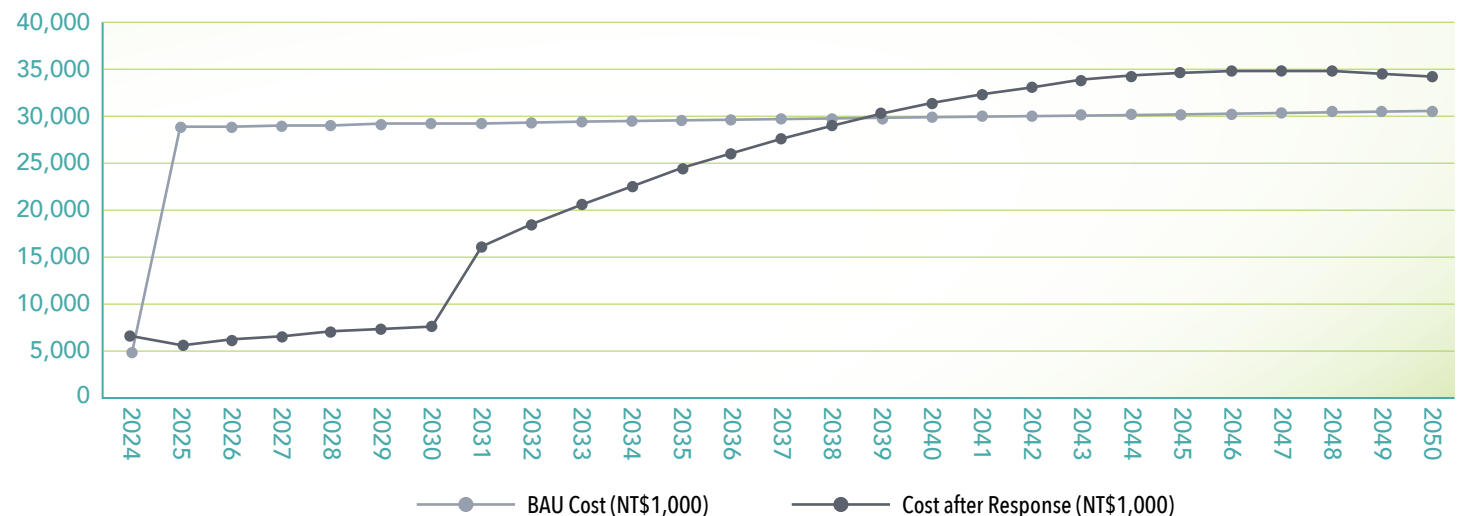
FINANCIAL IMPACT TYPES	YEAR	FINANCIAL IMPACT (NT\$1,000/YEAR)	FINANCIAL IMPACT DETAILS
Financial Impact Before Risk Mitigation	2025	24,040	DECREASE IN REVENUE: It is estimated that if SBTi or other climate initiatives are not approved, the annual revenue growth rate will decrease by 1% with a probability of 10%. With 2022 revenue at NT\$24,039,671,000, the annual financial impact is approximately NT\$24,040,000 ⁷ .
	2030	24,040	
	2050	24,040	
Financial Impact After Risk Mitigation	2025	0	By implementing professional advisory resources, we can meet the carbon reduction requirements of our customers. Customer orders will not be not affected.
	2030	0	
	2050	0	

⁷ The estimation is based on 2022 revenue, which is set as the base year for greenhouse gas inventories.

Based on the scenario analysis above, a comparison between the risk cost derived from the Business As Usual (BAU) scenario (not taking any action) and the reduced risk cost after implementing the response plan is shown in the following chart. The cost after response is expected to be higher than the BAU cost after 2039, primarily due to increasing annual green energy procurement cost that will result from increased green energy purchases needed to achieve the goal of 2050 net-zero emissions.

BAU Cost vs. Cost after Response

Unit: NT\$1,000



3.3 Financial Assessment of Climate-Related Opportunities and Strategies

Climate Opportunities Energy Sources: Utilizing Low-carbon Energy

Opportunity and Strategy Details	The Company strives to balance energy usage, environmental sustainability, and the development of a green economy. With this as a premise, we aim to create sustainable value by establishing a secure, stable, efficient, and clean energy supply and demand system. Starting in 2022, we have begun installing solar panels to increase our energy self-sufficiency. This not only benefits us by reducing carbon emissions from energy usage but also helps lower our operational costs related to energy expenses.
FINANCIAL IMPACT TYPES	FINANCIAL IMPACT DETAILS
Financial Impact of Strategic Response	<ul style="list-style-type: none"> With the 11.8 kW capacity already completed system in 2022, we will be able to generate approximately 16,366.6 kWh per year ($11.8 \text{ kWh/hr} \times 3.8 \text{ hr/day} \times 365 \text{ days}$). Calculated at a rate of NT\$3 per kWh, this will result in annual electricity cost savings of NT\$49,100. Additionally, the annual carbon fee savings will amount to $16,366.6 \text{ kWh} \times 0.000495 \text{ metric tons of CO}_2\text{e}^8 \text{ per kWh} \times \text{NT\\$300 per metric ton}$, which equals NT\$2,430. The original plan to install a 70 kW solar power system in 2023 is on hold; future feasibility will be evaluated per office. <p>The potential financial impact from these initiatives would be NT\$51,530 per year.</p>
Management Cost (Investment Cost)	2023's budget of NT\$7,000,000 is on hold; therefore, there was no investment cost in 2023.

8 The calculation was based on the electricity carbon emission factor in 2022.

Climate Opportunity Resource Efficiency: Using Energy-saving Equipment

Opportunity and Strategy Details	<p>The Company continuously promotes energy efficiency management practices by implementing initiatives such as upgrading building lighting, air conditioning equipment, etc. These actions aim to reduce the Company's operational expenses and enhance its resilience in response to climate-related risks. Specific measures include:</p> <ul style="list-style-type: none"> Energy-saving improvements for IT rooms (replacing HDDs with SSD storage equipment). Replacement of adsorption-dryer-based air compressor systems with more energy-saving alternatives. Complete replacement of traditional lighting with LED fixtures. Energy-saving improvements for the chiller system.
FINANCIAL IMPACT TYPES	FINANCIAL IMPACT DETAILS
Financial Impact of Strategic Response	<p>The amount of energy savings generated from the investment projects in 2023 are as follows:</p> <ul style="list-style-type: none"> Energy-saving improvements for IT rooms: Annual energy savings of 687,538 kWh. Replacement of adsorption-dryer-based air compressor systems with more energy-saving alternatives: Annual energy savings of 85,810 kWh. Complete replacement of traditional lighting with LED fixtures: Annual energy savings of 13,782 kWh. Energy-saving improvements for the chiller system: Annual energy savings of 122,625 kWh. The above improvements result in a total annual electricity consumption savings of 909,755 kWh, calculated at NT\$3 per kWh, which amounts to annual electricity cost savings of NT\$2,729,265. Additionally, these measures will lead to a reduction in carbon fees of NT\$135,099 annually ($909,755 \text{ kWh} \times 0.000495 \text{ metric tons of CO}_2\text{e/kWh} \times \text{NT\\$300/metric ton}$). <p>The potential financial impact from these initiatives amount to NT\$2,864,364 per year.</p>
Management Cost (Investment Cost)	<p>The investment amounts in 2023 are as follows:</p> <ul style="list-style-type: none"> Energy-saving improvements for IT rooms: NT\$145,000,000 Replacement of adsorption-dryer-based air compressor systems with more energy-saving alternatives: NT\$1,190,000 Complete replacement of traditional lighting with LED fixtures: NT\$300,000 Energy-saving improvements for the chiller system: NT\$3,553,000 <p>The total cost of investment in 2023 is NT\$150,043,000.</p>



3.4 Financial Planning and Performance Impact of Climate-Related Risks and Opportunities

	CLIMATE-RELATED RISKS AND OPPORTUNITIES	REVENUE	COSTS AND EXPENSES	ASSETS	LIABILITIES	CAPITAL EXPENDITURES AND CAPITAL ALLOCATION	ACQUISITIONS AND ASSET DIVESTITURES	CAPITAL RAISING
TRANSITION RISK	POLICY AND REGULATIONS Renewable Energy Regulations and Carbon Fees	None	Please see tables in Section 3.2 for details	None	None	None	None	Self-owned funds
	MARKET Changes in Customer Behavior	Please see tables in Section 3.2 for details	None	None	None	None	None	None
CLIMATE OPPORTUNITY	ENERGY SOURCES Utilizing Low-carbon Energy	None	Please see tables in Section 3.3 for details	Please see tables in Section 3.3 for details	None	Please see tables in Section 3.3 for details	None	Self-owned funds
	RESOURCE EFFICIENCY Using Energy-saving Equipment	None	Please see tables in Section 3.3 for details	The asset residual value after replacement is zero, with no asset impairment.	None	Please see tables in Section 3.3 for details	None	Self-owned funds

3.5 Current and Expected Impacts of Climate-Related Risks and Opportunities on Business Model and Value Chain

	CLIMATE-RELATED RISKS AND OPPORTUNITIES	BUSINESS MODEL	VALUE CHAIN	REGION	TYPE OF FACILITIES OR ASSETS
TRANSITION RISK	POLICY AND REGULATIONS Renewable Energy Regulations and Carbon Fees	The Company is an order-based IC design service provider, and all wafer products are outsourced for production; therefore, the manufacturing costs are passed on to customers, and there is no significant impact on the Company's business model.	The Company actively keeps track of the amount of greenhouse gas emissions from our supply chain and related management measures, with appropriate actions taken. As for greenhouse gas inventories, the Company is especially concerned about emissions from product manufacturing, and has implemented verification measures in cooperation with our supply chain to propose specific strategies to reduce emissions and improve performance.	The Company's main outsourced manufacturer is located in Taiwan.	Property, plant, and equipment
	MARKET Changes in Customer Behavior		With our leading technology, the Company develops advanced IP solutions to help customers create products with low energy consumption.	The Company's main sales regions include Taiwan, the US, China, South Korea, Japan, and Europe.	None
CLIMATE OPPORTUNITY	ENERGY SOURCES Utilizing Low-carbon Energy		Increase the proportion of low-carbon energy used in the Company's operating facilities.	The Company's emission sources are centralized in our Taiwan headquarters.	Property, plant, and equipment
	RESOURCE EFFICIENCY Using Energy-saving Equipment		Prioritize purchases of energy-efficient equipment.	The Company's emission sources are centralized in our Taiwan headquarters.	Property, plant, and equipment

METRICS AND TARGETS

4.1 Greenhouse Gas Emission Indicators

The Company is committed to environmental and ecological sustainability. Since 2019, it has been voluntarily conducting organizational greenhouse gas inventory and management. In 2021, external verification was introduced in accordance with ISO 14064-1:2018 standards. Starting in 2022, the Company has made concrete commitments to achieve carbon neutrality/net-zero emissions by 2050 and disclose its future carbon footprint. The Company joined the SBTi in the second half of 2023, and applied the GHG Protocol framework for the first time in our 2022 greenhouse gas inventory. The year 2022 serves as the base year for GUC's greenhouse gas inventories and management, and our 2022 and 2023 greenhouse gas inventories have already completed verification⁹. The results of the Group's greenhouse gas inventory in 2022 and 2023 are as follows:

⁹ The year 2022 was set as the base year; the GHG Protocol was applied to the Scope 3 greenhouse gas inventory for the first time; and the 2022 Scope 1 and Scope 2 data was externally verified. Scope 1: 174.86 metric tons CO₂e; Scope 2: 8,708.62 metric tons CO₂e; and Scope 3: 104,554.97 metric tons CO₂e. The Scope 3 data was collected in accordance with the GHG Protocol but has yet to be externally verified (as SBTi currently requires no external verification, the data has not been submitted for verification).

YEAR OF INVENTORY DATA	2023		2022	
Assurance Entity	AFNOR International		SGS Taiwan Ltd.	
Assurance Standard	GHG Protocol		ISO 14064-1	
Assurance Opinion	A limited assurance statement was submitted, with no reservations expressed.		A limited assurance statement was submitted, with no reservations expressed.	
Emission Source	Total Emissions (metric tons CO ₂ e)	Intensity ^(Note 3) (metric tons CO ₂ e/NT\$1,000)	Total Emissions (metric tons CO ₂ e)	Intensity ^(Note 3) (metric tons CO ₂ e/NT\$1,000)
Scope 1 ^(Note 1)	933.0934	0.00004	174.8613	0.00001
Scope 2 ^(Note 1)	9,417.9627	0.00036	8,708.6177	0.00036
Scope 3 ^(Note 2)	195,464.2331	0.00745	1,598.0109	0.00007
Total	205,815.289	0.00785	10,481.490	0.00044

Note 1: Including all consolidated subsidiaries.

Note 2: For 2023 data, it includes Categories 1 to 7 under Scope 3.

For 2022 data, it includes the following:

(1) Business Travel: Airplane and overseas business travel using taxi for the parent company.

(2) Waste Transportation: Limited to the disposal of waste IC by the parent company.

(3) Purchase of Photocopy Paper: All consolidated subsidiaries are included.

(4) General Industrial Waste Disposal: Limited to the disposal of general industrial waste by the parent company.

(5) Electricity Procurement: Limited to electricity procurement in Taiwan.

Note 3: Intensity is calculated based on the Company's consolidated revenue (Unit: NT\$1,000).





4.2 Target Planning

The historical records of the Company's greenhouse gas emissions, electricity consumption, water usage, and solar power generation from 2021–2023 are presented in the following table. The greenhouse gas inventory started in 2021, and the solar panels were installed in 2022.

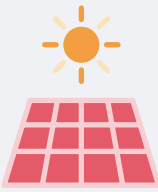

10 Greenhouse Gas Emission Intensity = Greenhouse Gas Emissions / Annual Consolidated Net Revenue

11 Electricity Use Intensity = Purchased Electricity Consumption / Annual Consolidated Net Revenue

12 Water Use Intensity = Tap Water Consumption / Number of Employees, as of year-end

ITEM	UNIT/SCOPE	ORGANIZATIONAL BOUNDARY	2021	2022	2023
Annual Consolidated Net Revenue (NT\$1,000)			15,107,915	24,039,671	26,240,714
Greenhouse Gas 	Metric tons of CO ₂ Equivalent	Entire Group	7,505.614	10,481.490	205,815.289
	Emission Intensity ¹⁰		0.0497%	0.0436%	0.784%
Purchased Electricity 	Thousand Kilowatt-Hours (kWh)	Hsinchu Headquarters	6,345.5	6,129.1	5,930.9
	Electricity Use Intensity ¹¹		0.0420%	0.0255%	0.0226%
Tap Water 	kL	Hsinchu Headquarters	16,161	16,550	16,585
	Number of employees		473	512	517
	Water Use Intensity ¹²		34.1670	32.3242	32.0793
Solar Power Generation 	kWh	Hsinchu Headquarters	-	21,776	13,499

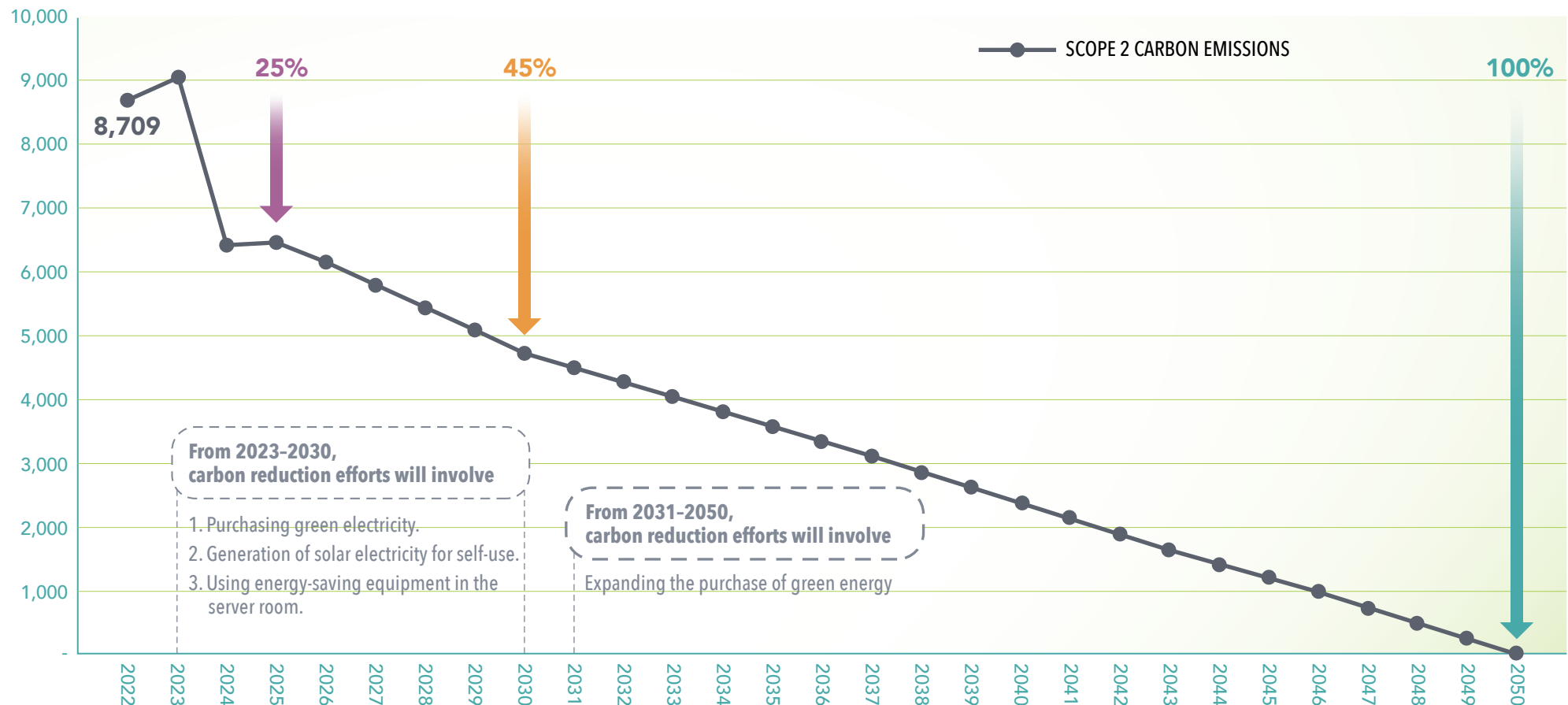
The Company has set targets for electricity consumption that surpass government regulations to actively contribute to achieving the government's goal of net-zero emissions by 2050. GUC has also introduced water resource inventory management into our targets. The short, medium, and long-term plans for these targets are as follows:

	RISK MANAGEMENT PLANNING	TARGETS	2023 PROGRESS DESCRIPTION
ENERGY MANAGEMENT	<ul style="list-style-type: none"> Regular maintenance and servicing of air conditioning systems to ensure high efficiency. Set the outlet water temperature of the chiller at 8°C or higher. The recommended indoor temperature for air conditioning is 26°C, taking into account sunlight and varying heat loads. Consider installing curtains and heat-reflective film as appropriate. Starting from 2022, we have been implementing a solar photovoltaic system as part of our green energy equipment installation plan, contributing our efforts to reduce global warming and environmental pollution. 	<p>SHORT TO MEDIUM TERM (1–10 YEARS):</p> <ul style="list-style-type: none"> Continuously implement energy-saving measures, aiming for an annual electricity consumption reduction of at least 1% or more. <p>LONG TERM (10 YEARS AND MORE):</p> <ul style="list-style-type: none"> For the long term, set a target for 2030, aiming to achieve a renewable energy usage ratio of RE20. 	<ul style="list-style-type: none"> As green energy only began to be supplied in December 2023, just 1,469 kWh of green energy was purchased in 2023. The difference with the original green energy procurement target of 900,000 kWh set for 2023 will be made up for in 2024. Our self-generated, self-used solar photovoltaic systems generated 13,499 kWh of electricity in 2023. Energy-saving investment projects resulted in 909,755 kWh in electricity savings for 2023, and a reduction of 450.3 metric tons of CO₂e. The electricity use intensity of our self-owned Hsinchu Headquarters offices in 2023 decreased by 0.0029% as compared to 2022.
WATER CONSUMPTION	<ul style="list-style-type: none"> Adjust the air conditioning cooling tower drainage to reduce water consumption for air conditioning. Reduce the water flow from faucets to minimize domestic water usage. 	<p>SHORT TO MEDIUM TERM (1–10 YEARS):</p> <ul style="list-style-type: none"> Install a rainwater harvesting system for irrigating landscape plants and trees. Ensure proper operation of automatic sensor faucets in restrooms to control water flow for water-saving and hygiene purposes. Ensure proper operation of dual-flush water-saving toilets in restrooms, preventing water leaks. <p>LONG TERM (10 YEARS AND MORE):</p> <ul style="list-style-type: none"> In accordance with the policies of the Science Park Management Authority, enhance water conservation measures during water-saving periods and record daily water usage to achieve the monthly water-saving targets set by the Science Park Management Authority. 	<p>2023 water use intensity decreased by 0.2449 kL as compared to 2022.</p>

In addition to complying with Taiwan's Nationally Determined Contribution (NDC) for greenhouse gas reduction and the regulations of the Climate Change Response Act, the Company actively participates in the Science-Based Targets initiative (SBTi). We have declared that we will reduce Scope 2 emissions by 42% by 2030 (compared to the 2022 base year). This reduction target is significantly higher than the national goal of a 25% reduction in carbon emissions by 2030.

Because carbon emissions originating from electricity consumption accounted for 91% of direct and indirect energy-related emissions in 2023, the Company's carbon reduction pathway and strategy primarily focuses on achieving net-zero electricity emissions. Since the main source of electricity consumption is from the server data room, the Company's future emissions reduction plan relies on increasing the use of green energy to reduce carbon emissions. The current commitment to SBTi aims to reduce electricity emissions by 42% by 2030 (compared to the 2022 base year), with the ultimate goal of achieving net-zero electricity emissions by 2050.

Carbon Reduction Pathway (CO₂e Tons)



APPENDIX

Appendix 1: References

- IPCC (2021), Sixth Assessment Report of Intergovernmental Panel on Climate Change 2021: The Physical Science Basis.
- Excerpts from the IPCC Sixth Assessment Report on Climate Change and an Updated Report on Climate Change Assessment in Taiwan
- Taiwan's Pathway to Net-Zero Emissions in 2050 and 12 Key Strategies

Appendix 2: TCFD Disclosure Comparison Table

ASPECT	RECOMMENDED TCFD DISCLOSURE ITEMS	CORRESPONDING SECTION	PAGE NUMBER
Governance	a) Describe the Board's oversight of climate-related risks and opportunities.	1.3 Organization and Responsibilities	7
	b) Describe management's role in assessing and managing climate-related risks and opportunities.	1.3 Organization and Responsibilities	7
Strategy	a) Describe the short, medium, and long term climate-related risks and opportunities identified by the organization.	2.2 Results of Climate Change Risk and Opportunity Identification	13
	b) Describe the impact of climate-related risks and opportunities on the organization's businesses, strategy, and financial planning.	3.2 Financial Assessment of Climate-Related Risks and Strategies 3.3 Financial Assessment of Climate-Related Opportunities and Strategies	19 21
	c) Describe the resilience of the organization's strategy, taking into consideration different climate-related scenarios, including a 2°C or lower scenario.	3.1 Climate Change Scenario Setting	15
Risk Management	a) Describe the organization's processes for identifying and assessing climate-related risks.	2.1 Risk and Opportunity Identification and Assessment Process	10
	b) Describe the organization's processes for managing climate-related risks.	2.3 Summary of the Impact of Risks and Opportunities on the Company	14
	c) Describe how processes for identifying, assessing, and managing climate-related risks are integrated into the organization's overall risk management system.	2.1 Risk and Opportunity Identification and Assessment Process 2.2 Results of Climate Change Risk and Opportunity Identification 2.3 Summary of the Impact of Risks and Opportunities on the Company	10 13 14
Metrics and Targets	a) Disclose the metrics used by the organization to assess climate-related risks and opportunities in line with its strategy and risk management process. ¹³	4.1 Greenhouse Gas Emission Indicators	23
	b) Disclose Scope 1, Scope 2, and (if appropriate) Scope 3 greenhouse gas emissions and the related risks.	4.1 Greenhouse Gas Emission Indicators	23
	c) Describe the targets used by the organization to manage climate-related risks and opportunities and performance in achieving these targets.	4.1 Greenhouse Gas Emission Indicators	23

¹³ Following discussions within the TCFD Task Force, it has been determined that since the Company only engages in commissioned design and production, without its own products and without a clear definition of low-carbon products or technologies, no climate-related opportunity indicators and targets (such as the number of low-carbon product patents or the percentage of low-carbon product sales to total sales) will be set.

Appendix 3: Comparison Table of Climate-Related Information of Listed Companies

CLIMATE CHANGE RISKS AND OPPORTUNITIES FOR THE COMPANY AND RELEVANT MITIGATION MEASURES TAKEN BY THE COMPANY	CORRESPONDING SECTION	PAGE NUMBER
Describe the oversight and governance of climate-related risks and opportunities by the Board of Directors and management.	1.3 Organization and Responsibilities	7
Describe how identified climate risks and opportunities affect the business, strategy, and finances of the enterprise in the short, medium, and long term.	3.2 Financial Assessment of Climate-Related Risks and Strategies	19
	3.3 Financial Assessment of Climate-Related Opportunities and Strategies	21
Describe the financial impacts of extreme weather events and transformation actions.	2.3 Summary of the Impact of Risks and Opportunities on the Company	14
	3.1 Climate Change Scenario Setting	15
Describe how the identification, assessment, and management of climate risks are integrated into the overall risk management system.	2.1 Risk and Opportunity Identification and Assessment Process	10
	2.2 Results of Climate Change Risk and Opportunity Identification	13
	2.3 Summary of the Impact of Risks and Opportunities on the Company	14
If scenario analysis is used to evaluate resilience to climate change risks, explain the scenarios, parameters, assumptions, analysis factors, and major financial impacts used.	3.1 Climate Change Scenario Setting	15
	3.2 Financial Assessment of Climate-Related Risks and Strategies	19
If there is a transformation plan to manage climate-related risks, describe the plan, indicators, and targets used to identify and manage physical and transition risks.	3.2 Financial Assessment of Climate-Related Risks and Strategies	19
	4.1 Greenhouse Gas Emission Indicators	23
If internal carbon pricing is used as a planning tool, explain the basis for price determination.	-	-
If climate-related goals are set, describe the activities, greenhouse gas emissions scope, planning period, annual progress, and, if carbon offsets or renewable energy certificates (RECs) are used to achieve the goals, explain the source and quantity of the carbon offsets or RECs.	4.1 Greenhouse Gas Emission Indicators	23
Inventory and verification of greenhouse gas emissions, as well as targets, strategies, and specific action plans for greenhouse gas reduction.	4.1 Greenhouse Gas Emission Indicators	23

Appendix 4: Limited Assurance Report by the Certified Public Accountants of Deloitte Taiwan



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INDEPENDENT AUDITORS' LIMITED ASSURANCE REPORT

Global Unichip Corp.

We have undertaken a limited assurance engagement on the selected performance indicators in the TCFD Report ("the Report") of Global Unichip Corp., ("the Company") for the year ended December 31, 2023.

Subject Matter Information and Applicable Criteria

See Appendix 1 for the Company's selected performance indicators ("the Subject Matter Information") and applicable criteria.

Responsibilities of Management

The management of the Company is responsible for the preparation of the Subject Matter Information in accordance with Recommendations of the TCFD framework of the Financial Stability Board (FSB) and the applicable benchmarks for the listed subject information, and for such internal control as management determines is necessary to enable the preparation of the Subject Matter Information that are free from material misstatement resulted from fraud or error.

Auditors' Responsibilities

Our responsibility is to plan and conduct our limited assurance engagement in accordance with Standard on Assurance Engagement 3000 "Assurance Engagements Other than Audits or Reviews of Historical Financial Information" issued by the Accounting Research and Development Foundation of the Republic of China to issue a limited assurance report on whether the Subject Matter Information (see Appendix 1) is free from material misstatement. The procedures performed in a limited assurance engagement vary in nature and timing from, and are less in extent than for, a reasonable assurance engagement and, therefore, a lower assurance level is obtained than a reasonable assurance.

We based on our professional judgment in the planning and conducting of our work to obtain evidence supporting the limited assurance. Because of the inherent limitations of any internal control, there is an unavoidable risk that even some material misstatements may remain undetected. The procedures we performed include, but not limited to:

- Inquiring of management and the personnel responsible for the Subject Matter Information to obtain an understanding of the policies, procedures, internal control, and information system relevant to the Subject Matter Information to identify areas where a material misstatement of the subject matter information is likely to arise.
- Selecting sample items from the Subject Matter Information and performing procedures such as inspection, re-calculation, and observation to obtain evidence supporting limited assurance.

Inherent Limitations

The Subject Matter Information involved non-financial information, which was subject to more inherent limitations than financial information. The information may involve significant judgment, assumptions and interpretations by the management, and the different stakeholders may have different interpretations of such information.

Independence and Quality Control

We have complied with the independence and other ethical requirements of the Norm of Professional Ethics for Certified Public Accountant in the Republic of China, which is founded on fundamental principles of integrity, objectivity, professional competence and due care, confidentiality, and professional behavior.

The firm applies Standard on Quality Management 1 "Quality Management for Public Accounting Firms" issued by the Accounting Research and Development Foundation of the Republic of China, which requires the firm to design, implement and operate a system of quality management including policies or procedures regarding compliance with ethical requirements, professional standards, and applicable legal and regulatory requirements.

Conclusion

Based on the procedures we have performed and the evidence we have obtained, nothing has come to our attention that causes us to believe that the Subject Matter Information is not prepared, in all material respects, in accordance with the applicable criteria.

Other Matters

We shall not be responsible for conducting any further assurance work for any change of the Subject Matter Information or the applicable criteria after the issuance date of this report.

The engagement partner on the limited assurance report is Chun-Hung Shih.

Deloitte & Touche
Taipei, Taiwan
Republic of China

July 5, 2024

Notice to Readers

For the convenience of readers, the independent auditors' limited assurance report and the accompanying summary of subject matter information have been translated into English from the original Chinese version prepared and used in the Republic of China. If there is any conflict between the English version and the original Chinese version or any difference in the interpretation of the two versions, the Chinese-language independent auditors' limited assurance report and summary of subject matter information shall prevail.

APPENDIX

SUMMARY OF SELECTED SUBJECT MATTER INFORMATION

#	Assurance Subject Matter	Corresponding Section	Applicable Criteria
1	Chapter 3.1 Climate Change Scenario Setting and 3.2 Financial Assessment of Climate-Related Risks and Strategies of the Report	3.1 Climate Change Scenario Setting 3.2 Financial Assessment of Climate-Related Risks and Strategies	Designated indicator 1 Scenario analysis undertaken by the organization for assessing resilience to climate change risks, including the scenarios, parameters, assumptions, analytical factors, and financial impacts used. Disclosure Considerations for Non-Financial Organizations: Organizations significantly impacted by climate-related issues should consider disclosing key aspects of their scenario analysis, such as the scenarios used, the parameters required by the scenarios, assumptions, analytical factors, and financial impacts. Parameters, assumptions, and analytical factors required by the scenarios include (1) Assumptions about possible technology responses and timing (e.g., evolution of products/services, the technology used to produce them, and implement costs) (2) Assumptions with potential differences based on input parameters across regions, countries, asset locations, and/or markets (3) Sensitivities to key assumptions
2-1	As green energy only began to be supplied in December 2023, just 1,469 kWh of green energy was purchased in 2023.	4.2 Target Planning	Designated indicator 2-1 Green energy (in kWh) purchased in 2023 The amount of green energy purchased from green energy company in 2023, with data sourced from the green energy bills of every month.
2-2	Our self-generated, self-used solar photovoltaic systems generated 13,499 kWh of electricity in 2023.	4.2 Target Planning	Designated indicator 2-2 Electricity (in kWh) generated from self-generated, self-used solar photovoltaic systems in 2023 The amount of electricity generated from self-generated, self-used solar photovoltaic systems in 2023, with data sourced from self-generated, self-used solar photovoltaic systems.

(Continued)

#	Assurance Subject Matter	Corresponding Section	Applicable Criteria
2-3	Energy-saving investment projects resulted in 909,755 kWh in electricity savings for 2023, and a reduction of 450.3 metric tons of CO ₂ e.	4.2 Target Planning	Designated indicator 2-3 Annual electricity savings (in kWh) and carbon reduction (CO ₂ e in tons) of energy-saving investment projects in 2023 The electricity savings are derived from comparing the 2023 electricity consumption of energy-saving investment projects with the 2022 electricity consumption, with data sourced from the supporting documents of electricity savings for each energy-saving investment project. The carbon reduction is then calculated based on the aforementioned electricity savings using the 2022 power emission factor of 0.495 kg CO ₂ e/kWh. • Annual electricity savings = Electricity consumption of energy-saving investment projects in 2023 - Electricity consumption in 2022. • Annual carbon reduction = (Electricity consumption in 2023 - Electricity consumption in 2022) * Power emission factor of 0.495 kg CO ₂ e/kWh.
2-4	The electricity use intensity of our self-owned Hsinchu Headquarters offices in 2023 decreased by 0.0029% as compared to 2022.	4.2 Target Planning	Designated indicator 2-4 The electricity use intensity of self-owned Hsinchu Headquarters offices in 2023 decreased compared to 2022. • Electricity use intensity = Purchased electricity consumption/Annual consolidated net revenue, with data sourced from Taiwan Power bills and audited consolidated financial statements. • Comparing the electricity use intensity of self-owned Hsinchu Headquarters offices in 2023 with that of 2022 reveals the change in electricity consumption per unit of consolidated net revenue. The formula is 2023 electricity use intensity - 2022 electricity use intensity.
2-5	2023 water use intensity decreased by 0.2449 kL as compared to 2022.	4.2 Target Planning	Designated indicator 2-5 The water use intensity in 2023 decreased compared to 2022. • Water use intensity = Tap Water Consumption (kL)/Number of Employees, as of year-end. Data sourced from Taiwan Water bills and employee statistics compiled by the company's Human Resources department. • Comparing the water use intensity in 2023 with that in 2022 reveals the change in water usage per employee. The formula is: 2023 water use intensity - 2022 water use intensity.

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