

2022 Global Unichip Corporation
TASK FORCE ON CLIMATE-RELATED
FINANCIAL DISCLOSURES (TCFD) STATUS REPORT

TCFD



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ABOUT THIS REPORT

The information disclosed in Chapter 2, “Climate Change Risks and Opportunities 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 the “Company”) 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 DECLARATION

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.

As global warming intensifies and extreme climate disasters become more frequent, they have caused significant economic losses for many countries and businesses. To mitigate the risks and impacts of climate change, the Company is promoting various environmental conservation, energy-saving, and carbon reduction measures internally to enhance our adaptability and resilience to climate change impacts.

In 2022, the Company completed the planning of its roadmap for achieving the 2050 net-zero carbon emissions sustainable development goal. This includes conducting greenhouse gas inventories for all subsidiary companies included in the consolidated financial reports and scheduling plans for carbon neutrality promotion and implementation. Furthermore, to effectively address climate change risks and fulfill our corporate social responsibility, the Company is taking further steps to adhere to the recommendations of the Task Force on Climate-Related Financial Disclosures (TCFD) framework. We are actively reviewing the potential impacts of our products and services on society, the environment, and the economy. We are integrating climate change-related opportunities and risk scenarios into our assessments. In 2023, we will release our first-ever TCFD Status Report and submit a carbon reduction commitment to the Science Based Targets initiative (SBTi). We will also present both short-term and long-term reduction targets as part of our commitment.

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. Despite being a small-scale and fabless IC design service provider, the Company remains committed to mitigating climate change. We will continue to review and improve our net-zero carbon efforts through internal control processes such as risk management. Our dedication to carbon reduction is unwavering as we strive to fulfill our commitment to provide a sustainable future for the generations to come.

1 GOVERNANCE

1.1 Company Profile

Global Unichip Corporation (referred to as GUC) is a leading application-specific integrated circuit (ASIC) design company. Established in January 1998, our headquarters is located in the Hsinchu Science Park in Taiwan. 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. We provide IC design services that enable rapid implementation, timely issue resolution, and successful verification to 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, 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 841 employees. In 2022, our consolidated net revenue was NT\$24 billion, and the consolidated earnings per share were NT\$27.69.

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.



Established in
January 1998



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



We have a total of
841 employees



Consolidated net revenue
was NT\$ **24** billion



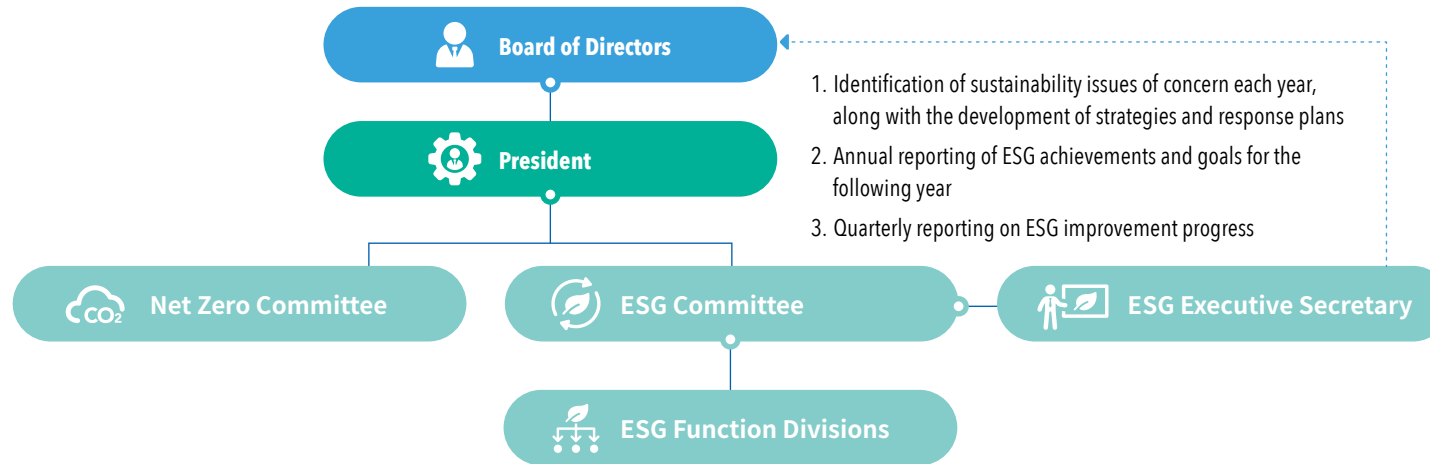
Consolidated earnings per
share were NT\$ **27.69**

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, 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 an ESG (Environmental, Social, Governance) Committee and a Net Zero Committee, both led by President Sean Tai (who also serves as a director of the Company). 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.

The Board of Directors reviewed the progress of ESG initiatives in 2022 and formulated the ESG execution goals for 2023 on February 2, 2023. In addition to aiming for significant advancements in the 2023 ESG assessment, the Company shall enhance information disclosure related to TCFD in order to assess climate-related risks and opportunities in terms of impact and response strategies. Regarding carbon reduction targets, the Company actively participates in the SBTi. To help realize the 1.5°C warming scenario, we have set 2022 as the base year and declared the goal of reducing greenhouse gas Scope 2 emissions by 42% 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 these initiatives 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 Committee

The Company established the “Corporate Social Responsibility (CSR) Promotion Committee” in 2015 and renamed it to the “Sustainable Development Committee” (ESG Committee) in 2021. 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.

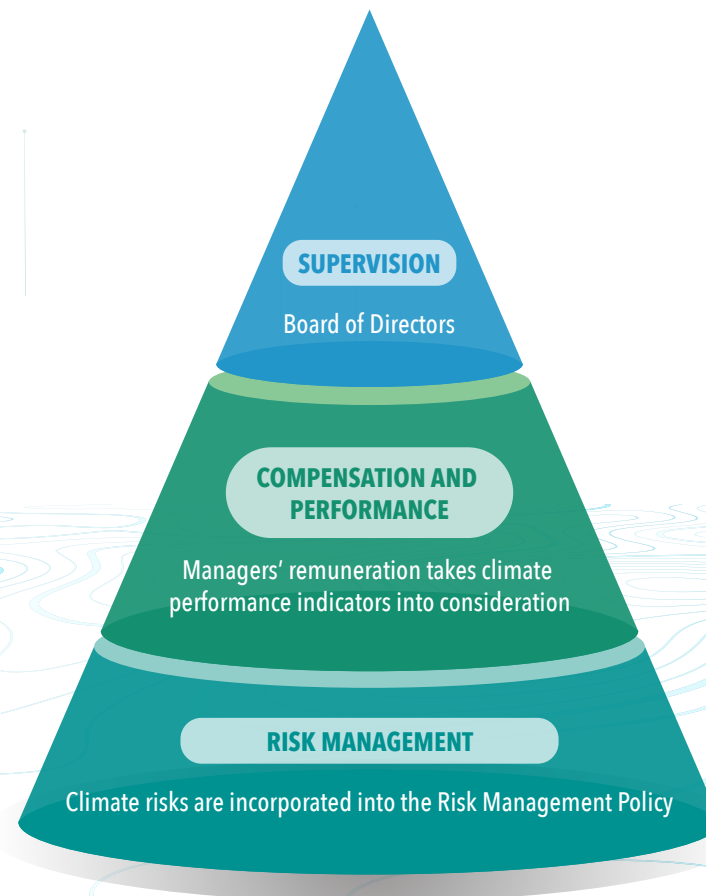
Net Zero Committee

To further enhance the principles of sustainable governance, the Company established the Net Zero Committee in 2022, with President Sean Tai (who also serves as a director of the Company) as the Chairman of the committee overseeing related matters. The committee’s primary responsibilities are as follows:



1.4 Remuneration System

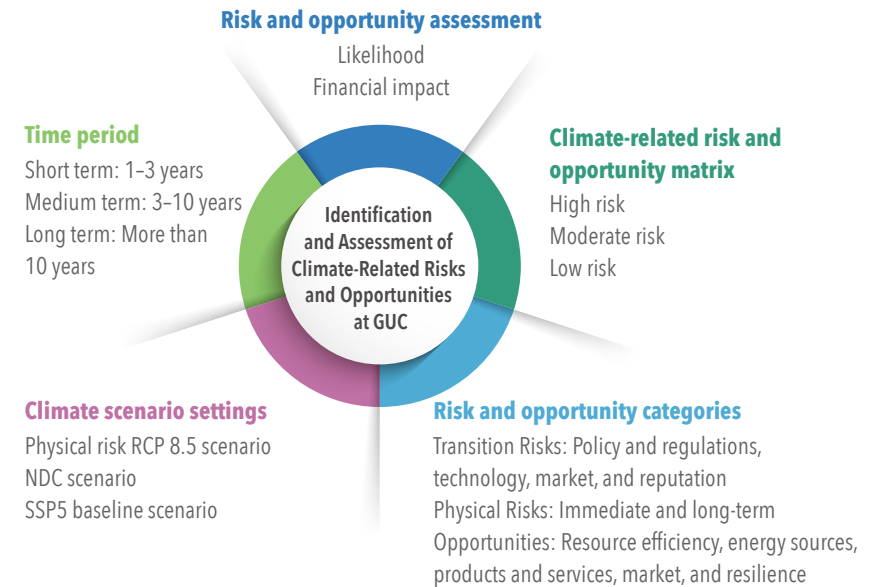
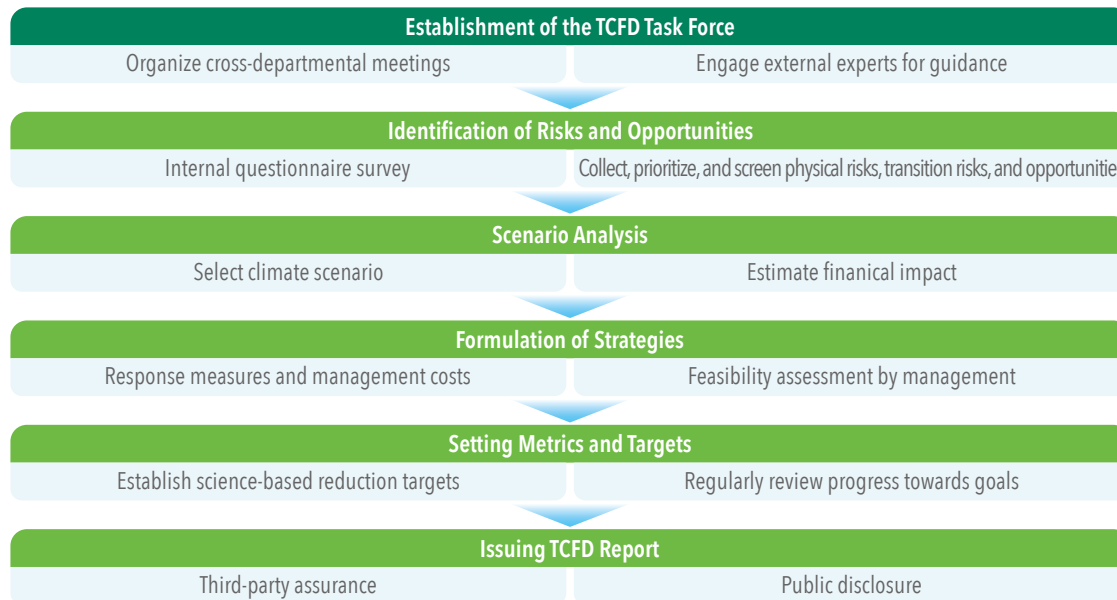
In terms of the relationship between ESG performance and compensation, managers in all functional units of the Company, including R&D, Design Services, Sales, Customer Service, Operations, Quality Control, Occupational Safety and Environmental Protection, Legal Affairs, Finance and Accounting, and Human 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 typically ranges from 5% to 20% of the overall KPIs for managers. Climate performance indicators, such as the results of carbon reduction projects, are also included in the assessment of ESG KPIs. During the annual performance assessment, manager compensation and rewards are influenced by the assessment results, reflecting their performance in achieving ESG-related goals.



2 CLIMATE CHANGE RISK AND OPPORTUNITY MANAGEMENT

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 property 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	50,000,000 ≤ Impact Amount	5
High	1-3 years	4	High	30,000,000 ≤ Impact Amount < 50,000,000	4
Moderate	3-6 years	3	Moderate	15,000,000 ≤ Impact Amount < 30,000,000	3
Low	6-9 years	2	Low	3,000,000 ≤ Impact Amount < 15,000,000	2
Very Low	Over 10 years	1	Very Low	3,000,000 < Impact Amount	1

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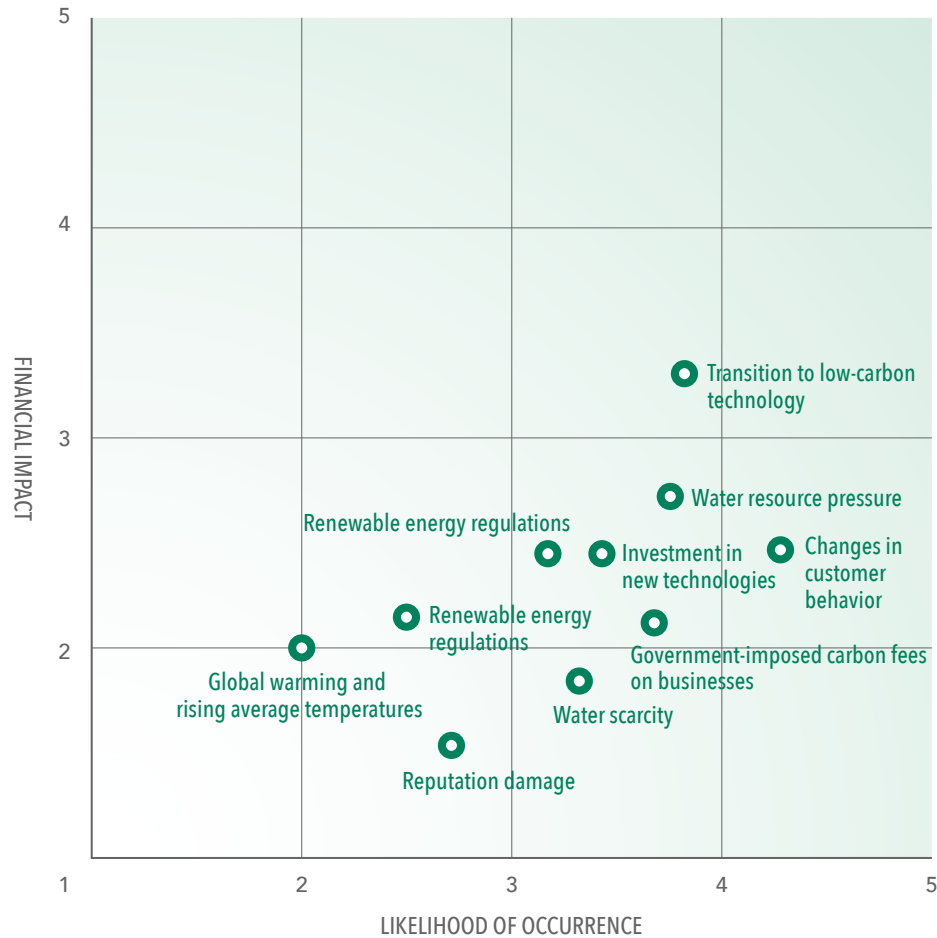
RISK TYPE	RISK VALUE
High Risk	12 ≤ Risk Value ≤ 25
Moderate Risk	5 ≤ Risk Value < 12
Low Risk	Risk Value < 5

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.

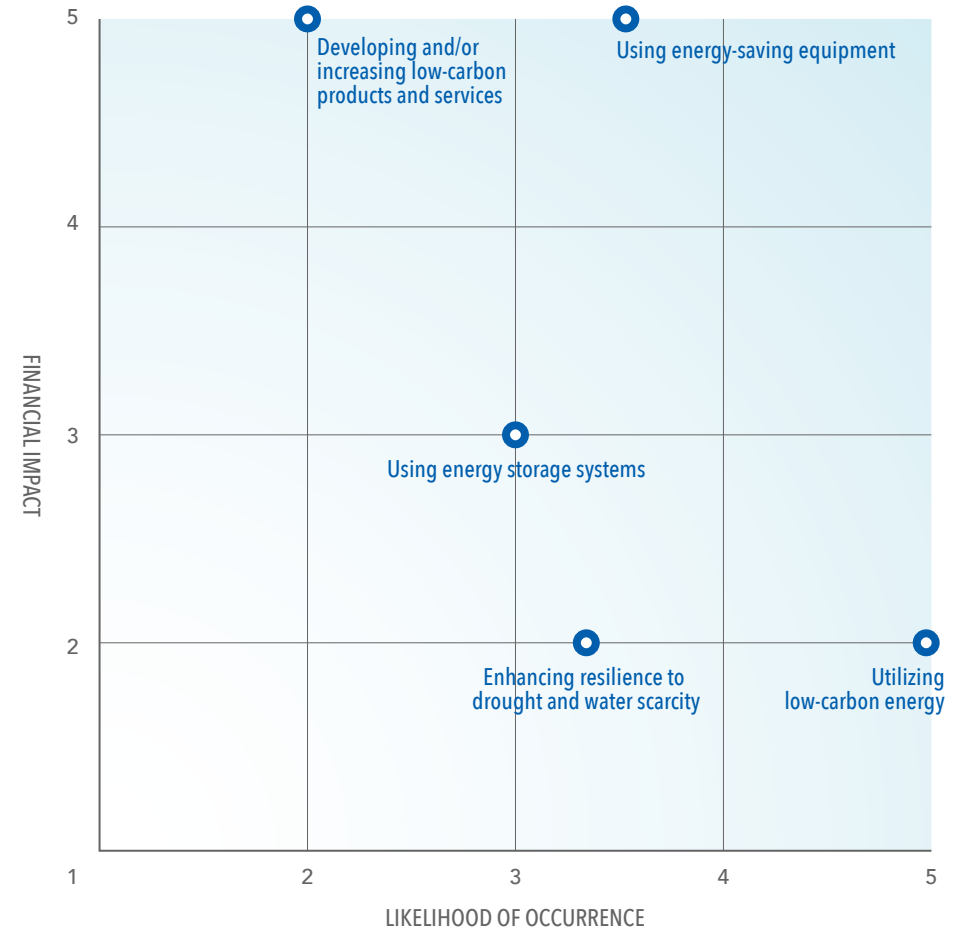
Climate-related Risk and Opportunity Matrix

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).

Risk Matrix



Opportunity Matrix



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	Yes	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	Yes	
	Technology	Investment in new technologies	No	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)	No	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. Additionally, tsmc has established a comprehensive water monitoring mechanism and emergency response procedures, which undergo regular drills.
		Water scarcity		
	Long-term	Water resource pressure	No	
Climate Opportunity	Energy Sources	Utilizing low-carbon energy	Yes	
	Resource Efficiency	Using energy-saving equipment	Yes	
	Products/ Services	Developing and/or increasing low-carbon products and services	No	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	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. The Company's electricity consumption in 2022 was 6,129 MWh. Given the Company's efforts in energy conservation and the lack of any anticipated significant increase in electricity usage in the future, the Company does not fall under the scope of Article 12 of the Renewable Energy Development Act. 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>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 will progressively increase its purchase of green energy starting from 2023. By 2030, it aims to cumulatively purchase 19,800,000 kWh of green energy, which is estimated to reduce carbon emissions from electricity by 42%. 2. The Company plans to upgrade or replace existing equipment with more energy-efficient alternatives. 3. The Company conducts annual greenhouse gas inventories in accordance with ISO 14064-1 standards and undergoes third-party external verification to ensure compliance with laws and regulations.
	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
Resource Efficiency	Utilizing Low-carbon Energy	The combined solar panel capacity constructed in 2022 along with the planned installation in 2023 will generate a total of 113,456 kWh of solar energy per year, reducing the Company's operating expenses for electricity and carbon fees.	In 2023, there are plans to install a 70 kW solar power generation system, at a cost of NT\$7 million.
Energy Sources	Using Energy-saving Equipment	<p>Energy-saving improvements for the IT room (in progress): Annual savings of 687,538 kWh.</p> <p>Complete replacement of traditional lighting with LED fixtures (completed): Annual savings of 44,433.2 kWh.</p> <p>Replacement of old air compressors with new ones (completed): Annual savings of 226,262 kWh.</p> <p>Energy-saving improvements for the chiller system (in progress): Annual savings of 135,009 kWh per unit.</p>	<p>Energy-saving improvements for the IT room (replacing SSD storage equipment).</p> <p>Replacement of old air compressors with new ones.</p> <p>Complete replacement of traditional lighting with LED fixtures.</p> <p>Energy-saving improvements for the chiller system.</p>

3 STRATEGY

3.1 Climate Change Scenario Setting

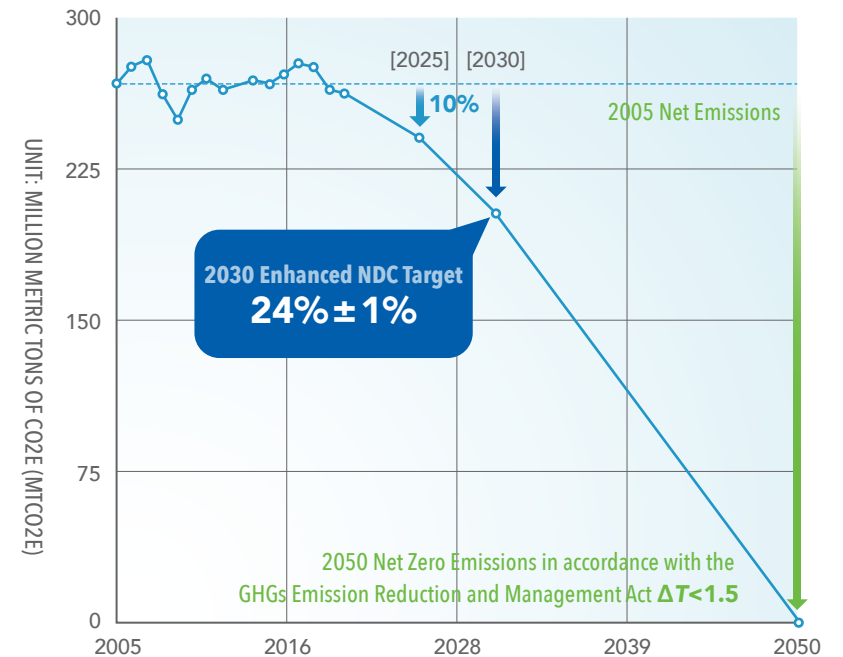
The Company conducts scenario setting based on the identified significant risks and opportunities. Since climate-related risks and opportunities impact future strategies and financial planning, the Company adopts the SSP5 Baseline Scenario to analyze and assess the resilience of its climate strategy.

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 Environmental Protection Administration; excess carbon fee cost calculated at NT\$1,500 per metric ton 	<p>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). This has potential operational implications for both the Company and its value chain. Additionally, the worst-case scenario for carbon emissions growth rate was estimated using the SSP5 Baseline Scenario.</p>

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

³ Source: <https://ws.ndc.gov.tw/Download.ashx?u=LzAwMS9hZG1pbmlzdHJhdG9yLzEwL3JlbGZpbGUvNzEzMi8zNjQ3Ni9kMzRmZjE1Yy03NGRlLTQ4MmYyYjEwZi03MzE4ZTg5MzE4MmUucGRm&n=MjAyMjE5MjgtSzYl55m85pyD57Ch5aCxX3Y2LnBkZg%3D%3D&icon=...pdf>

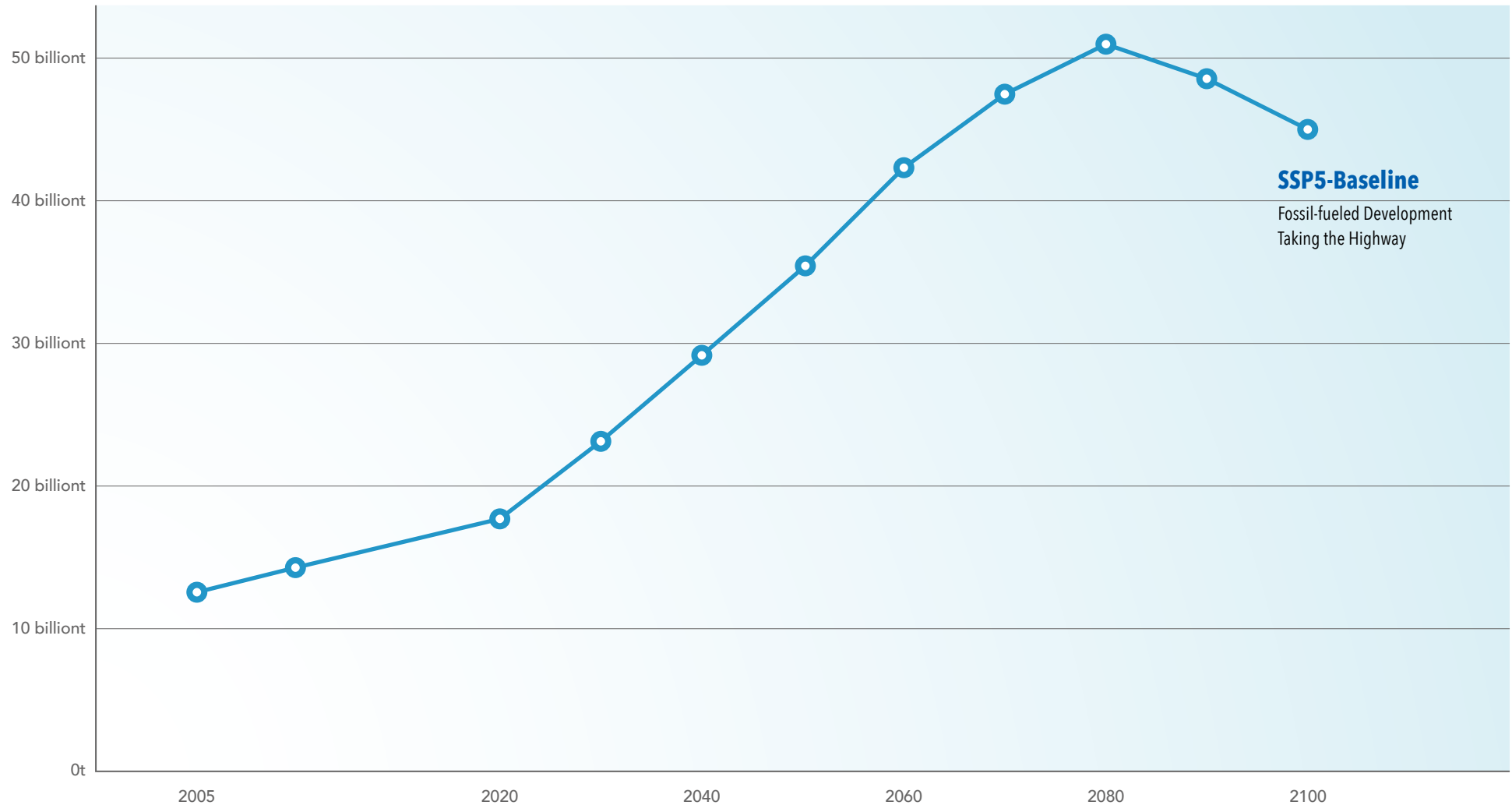
Taiwan's 2030 NDC³



Estimated Carbon Emission Growth Rate

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

Carbon dioxide emissions from Asia



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

Additionally, although physical risks were not identified as significant risks in this assessment, preventive risk assessments were still conducted through the following scenarios. In 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 Flood Disaster Potential Map of the National Science and Technology Center for Disaster Reduction, if the 24-hour accumulated rainfall reaches 650 mm, it will have no impact on operations at the Company's headquarters⁶.



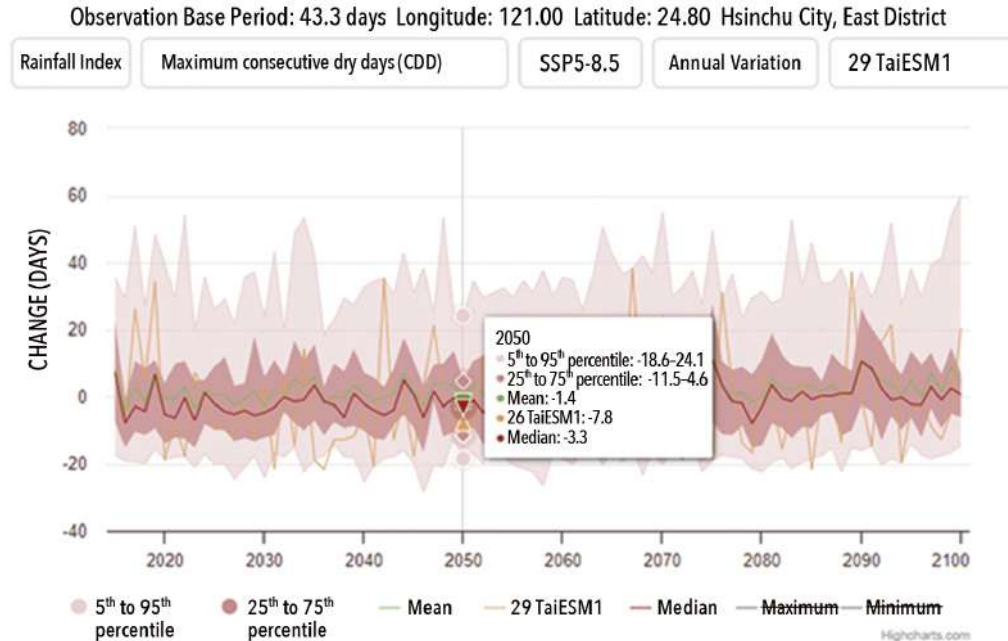
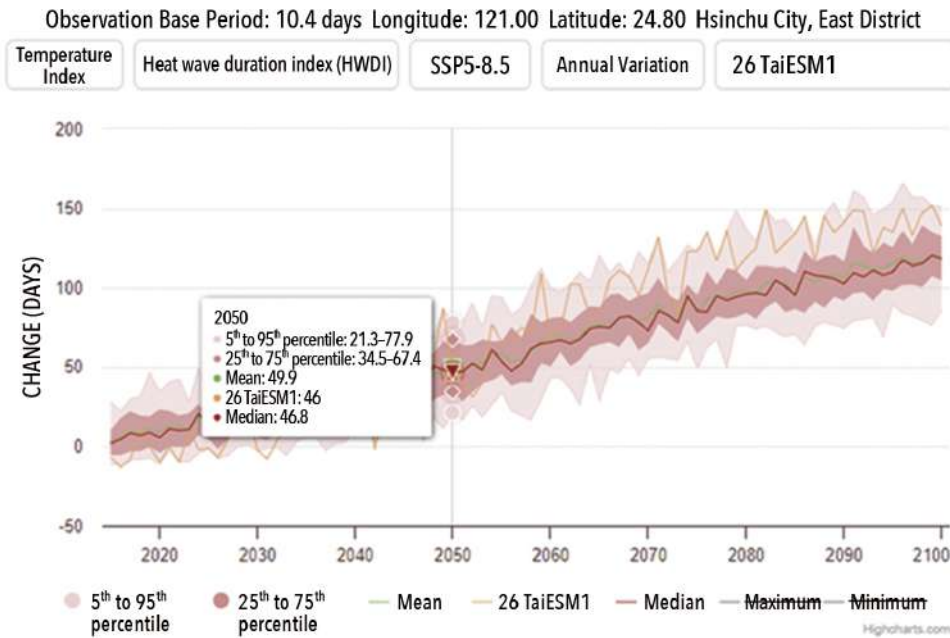
⁴ HWDI (Heat wave duration index): The total number of days in a year where the daily maximum temperature is higher than the 95th percentile of the baseline for 3 or more consecutive days.

⁵ CDD (Maximum number of consecutive dry days): 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 uninterrupted 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 significant climate-related risks and opportunities, a financial impact assessment is conducted based on the corresponding scenarios mentioned above.

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	Moderate	Very High	The Company Itself
	Market Changes in Customer Behavior	Medium-term	Moderate	Very High	Customer

Climate-related Significant Opportunities

OPPORTUNITIES	TIME FRAME	LIKELIHOOD OF OCCURRENCE	FINANCIAL IMPACT	RISK LOCATION
Energy Sources Utilizing Low-carbon Energy	Short-term	Very High	Low	The Company Itself
Resource Efficiency Using Energy-saving Equipment	Short-term	Very High	Low	The Company Itself

Transition Risk Policy and Regulations Renewable Energy Regulations and Carbon Fees



Risk and Strategy Details

- 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's electricity consumption in 2022 was 6,129 MWh. Given the Company's efforts in energy conservation and the lack of any anticipated significant increase in electricity usage in the future, the Company does not fall under the scope of Article 12 of the Renewable Energy Development Act.
- 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:** To achieve the goal of reducing carbon 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\$24.78 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

FINANCIAL IMPACT TYPES	YEAR	FINANCIAL IMPACT (NT\$1,000/YEAR)	FINANCIAL IMPACT DETAILS
Financial Impact Before Risk Mitigation	2025	6,829	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. The excess emissions cost is NT\$1,500 per metric ton, and there is a penalty of NT\$1.5 million for not meeting the requirements of the Renewable Energy Development Act.
	2030	11,270	
	2050	29,050	
Financial Impact After Risk Mitigation	2025	5,210	Based on evaluations, the purchase of 900,000 kWh of green energy in 2023, followed by an annual increase of 450,000 kWh of green energy until 2030 (4.05 million kWh) will enable us to meet our goal of reducing electricity carbon emissions by 42% by 2030. Starting from 2031, an annual increase of 1,088,500 kWh of green energy until 2050 (25.82 million kWh) will enable us to meet the goal of net-zero emissions by 2050. It is estimated that purchasing green energy will increase costs by approximately NT\$3 per kWh compared to Taiwan Power Company. Using green energy will reduce carbon fees and excess emissions costs.
	2030	7,269	
	2050	33,807	

Transition Risk **Market** Changes in Customer Behavior



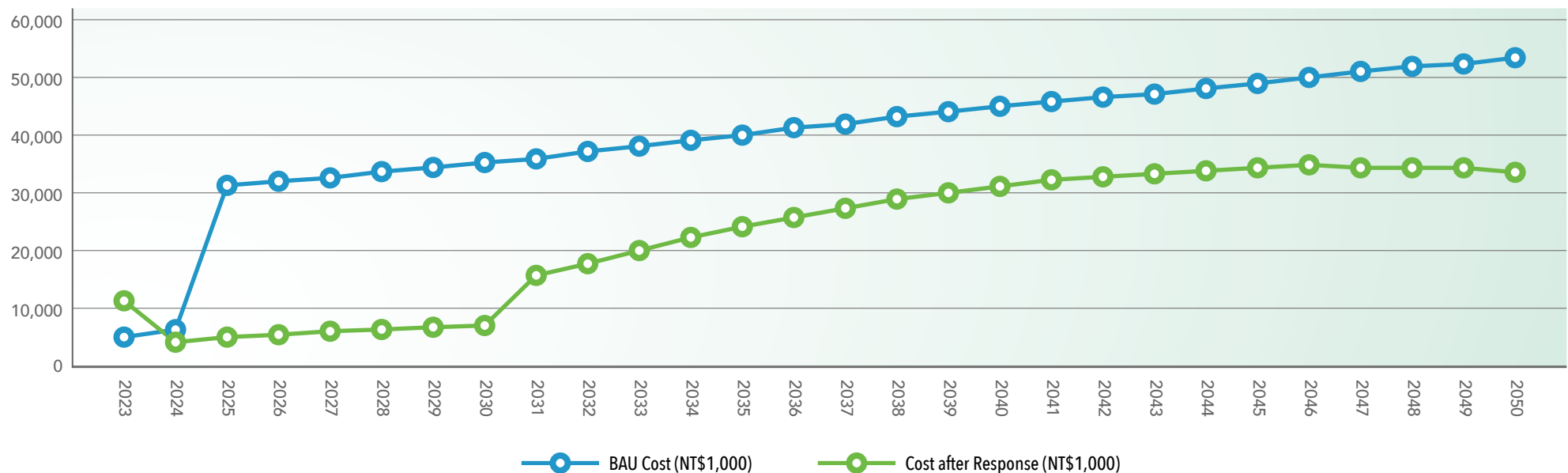
Risk and Strategy Details

1. 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.
2. The introduction of SBTi or other climate initiatives incurs advisory costs of NT\$1.29 million and SBTi verification costs of 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 thousand, the annual financial impact is approximately NT\$24,040 thousand.
	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	

Based on the scenario analyses 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:

BAU Cost vs. Cost after Response



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. 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"> In 2023, we plan to install a 70 kW solar power system. Combined with the 11.8 kW system that was completed in 2022, we will be able to generate approximately 113,456.6 kWh per year (81.8 kWh/hr × 3.8 hr/day × 365 days). Calculated at a rate of NT\$3 per kWh, this will result in annual electricity cost savings of NT\$340,370. Additionally, the annual carbon fee savings will amount to 113,456.6 kWh × 0.000495 metric tons of CO₂e per kWh × NT\$300 per metric ton, which equals NT\$16,848. <p>The potential financial gain from these initiatives would be NT\$357,695 per year.</p>
Management Cost (Investment Cost)	<ul style="list-style-type: none"> In 2022, a 11.8 kW solar power system was installed at a cost of NT\$1,143,200. In 2023, the installation of a 70 kW solar power system is planned, at a cost of NT\$7,000,000. The installation cost in 2022 was NT\$1,143,200; the installation budget for 2023 is NT\$7,000,000. <p>The total investment cost for these installations is NT\$8,143,200.</p>

Climate Opportunity Resource Efficiency Using Energy-saving Equipment







Opportunity and Strategy Details

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:

1. Upgrading lighting to LED fixtures in the office and corridor areas.
2. Replacing old uninterruptible power supply (UPS) systems with newer, high energy efficiency equipment.
3. Upgrading air compressors to newer, high energy efficiency equipment.
4. Replacing hardware in the IT room with newer, high energy efficiency equipment.

FINANCIAL IMPACT TYPES	FINANCIAL IMPACT DETAILS
Financial Impact of Strategic Response	<ul style="list-style-type: none"> Energy-saving improvements for the IT room (ongoing): Annual energy savings of 687,538 kWh. Complete replacement of traditional light fixtures with LED fixtures (already completed): Annual energy savings of 44,433.2 kWh. Replacement of old air compressor units with new, more energy-efficient ones (already completed): Annual energy savings of 226,262 kWh. Energy efficiency improvements for the chiller system (ongoing): Annual energy savings of 135,009 kWh/unit; two units remaining to be replaced. The above improvements result in a total annual electricity cost savings of 1,093,242 kWh, calculated at NT\$3 per kWh, which amounts to annual electricity cost savings of NT\$3,279,726. Additionally, these measures will lead to a reduction in carbon fees of NT\$162,346 annually (1,093,242 kWh × 0.000495 metric tons of CO₂e/kWh × NT\$300/metric ton). <p>The potential financial gains from these initiatives amount to NT\$3,446,664 per year.</p>
Management Cost (Investment Cost)	<ul style="list-style-type: none"> Energy-saving improvements for the IT room (ongoing): NT\$145,000,000 Replacement of old air compressor units with new ones (already completed): NT\$2,401,000 Complete replacement of traditional light fixtures with LED fixtures (already completed): NT\$2,505,100 Energy efficiency improvements for the chiller system (ongoing): NT\$1,939,000 <p>The total cost of investment is NT\$151,845,100.</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 DIVISION	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 residual value of replaced asset is zero so that there is no asset impairment.	None	Please see tables in Section 3.3 for details	None	Self-owned funds

4 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 year 2022 serves as the base year for GUC's greenhouse gas inventory and management, and the verification for the 2022 greenhouse gas inventory was completed in Q2 2023. The results of the Group's greenhouse gas inventory are as follows:

TON CO2e/YEAR	CATEGORY 1 (FIXED)	CATEGORY 1 (MOBILE)	CATEGORY ONE (FUGITIVE)	CATEGORY 2 (ELECTRICITY USE)	CATEGORY 3 (WASTE TRANSPORT (WASTE IC))	CATEGORY 3 (TAXI FOR BUSINESS TRAVEL)	CATEGORY 3 (AIR TRAVEL FOR BUSINESS TRAVEL)	CATEGORY 4 (CARBON FOOTPRINT OF ELECTRICITY UPSTREAM EXTRACTION AND TRANSMISSION)	CATEGORY 4 (GENERAL INDUSTRIAL WASTE GENERATION)	CATEGORY 4 (PURCHASE OF PHOTOCOPY PAPER)	CATEGORY 5	CATEGORY 6
Hsinchu Headquarters	0.0653	3.0396	118.3653	3,255.1695	0.0071	0.0306	16.0108	564.0588	80.9109	1.0075	No significant emissions	No significant emissions
Hsinchu Branch	No emission sources	No emission sources	8.1794	363.2487	Calculation based on headquarters only	Calculation based on headquarters only	N/A	62.9441	Calculation based on headquarters only	N/A		
Duxing Warehouse			0.0009	164.3186			N/A	28.4733		N/A		
Taipei Office			0.1366	105.4437			N/A	18.2714		N/A		
Tainan Office			0.0004	26.4571			N/A	4.5845		N/A		
VisEra Server Room			21.9283	4,614.5568			N/A	799.6148		N/A		
Nanjing Office			22.4806	121.0871			0.4396	Calculation based on operating sites in Taiwan only		N/A		
Beijing Office			0.0000	1.5228			N/A			N/A		
Shanghai Office			0.0000	18.5398			6.3961			0.0482		
Shenzhen Office			0.0000	0.5577			N/A			0.0241		
Europe Office			0.0000	7.1674			6.4710			N/A		
Japan Office			0.0003	0.0000			0.2988			0.0351		
North America Office			0.6640	16.4342			8.1174			N/A		
Korea Office			0.0006	14.1143			0.2414			0.0254		
Total			0.0653	3.0396			171.7564	8,708.6177		0.0071	0.0306	37.9751
Sum of Categories 1 to 6								1,0481.490				



Basic information of the Company

- Companies with a capital of NT\$10 billion or more, steel industry, cement industry
- Companies with a capital of NT\$5 billion or more but less than NT\$10 billion
- Companies with a capital of less than NT\$5 bil



According to the requirements of the Sustainable Development Roadmap for Listed Companies, the following disclosures should be made at a minimum

- Greenhouse gas emissions inventory for the parent company
- Greenhouse gas emissions inventory for subsidiaries in the consolidated financial statements
- Assurance for the parent company's emissions inventory
- Assurance for emissions inventory of subsidiaries in the consolidated financial statements

SCOPE 1	TOTAL EMISSIONS (METRIC TONS CO ₂ e)	INTENSITY (NOTE 5) (METRIC TONS CO ₂ e/NT\$1,000)	ASSURANCE ENTITY	EXPLANATION OF ASSURANCE STATUS
GUC	151.7158	0.00001	SGS Taiwan Ltd.	SGS Taiwan Ltd. has submitted a limited assurance statement and has provided an unqualified opinion.
GUC-NA	0.0006	0.00000		
GUC-JP	0.0003	0.00000		
GUC-NJ	22.4806	0.00002		
GUC-CN	0	-		
GUC-KR	0.664	0.00009		
GUC-EU	0	-		
Total	174.8613	0.00012		

SCOPE 2	TOTAL EMISSIONS (METRIC TONS CO ₂ e)	INTENSITY (NOTE 5) (METRIC TONS CO ₂ e/NT\$1,000)	ASSURANCE ENTITY	EXPLANATION OF ASSURANCE STATUS
GUC	8,529.1944		SGS Taiwan Ltd.	SGS Taiwan Ltd. has submitted a limited assurance statement and has provided an unqualified opinion.
GUC-NA	14.1143	0.0004		
GUC-JP	0	0.0001		
GUC-NJ	123.1676	-		
GUC-CN	18.5398	0.0001		
GUC-KR	16.4342	0.0002		
GUC-EU	7.1674	0.0023		
Total	8,708.6177	0.0032		

SCOPE 3	TOTAL EMISSIONS (METRIC TONS CO ₂ e)	INTENSITY (NOTE 6) (METRIC TONS CO ₂ e/NT\$1,000)	ASSURANCE ENTITY	EXPLANATION OF ASSURANCE STATUS
Business Travel (Note 1)	38.0057	0.0000	SGS Taiwan Ltd.	SGS Taiwan Ltd. has submitted a limited assurance statement and has provided an unqualified opinion.
Waste Transportation (Note 2)	0.0071	0.0000		
Purchase of Photocopy Paper	1.1403	0.0000		
General Industrial Waste Disposal (Note 3)	80.9109	0.0000		
Electricity Procurement (Note 4)	1,477.9469	0.0001		
Total	1,598.0109	0.0001		

Note 1: Airplane and overseas business travel using taxi for the parent company.

Note 2: Limited to the disposal of waste IC by the parent company.

Note 3: Limited to the disposal of general industrial waste by the parent company.

Note 4: Limited to electricity procurement in Taiwan.

Note 5: Intensity is calculated based on individual company revenue (Unit: NT\$1,000).

Note 6: Intensity is calculated based on the parent company's consolidated revenue (Unit: NT\$1,000).

4.2 Carbon Reduction Targets Planning

The historical records of the Company's greenhouse gas emissions, electricity consumption, water usage, and renewable energy use from 2020 to 2022 are presented in the following table. The greenhouse gas inventory started in 2021, and the solar panels were installed in 2022.

ITEM	ORGANIZATIONAL BOUNDARY	2020	2021	2022	UNIT/SCOPE	
Greenhouse Gas	Hsinchu Headquarters	-	7,505.614	7,645.704	Metric tons of CO ₂ Equivalent	
			0.0497%	0.0318%	Emission Intensity ⁷	
Purchased Electricity		6,408.3	6,345.5	6,129.1	Thousand Kilowatt-Hours (MWh)	
		0.0472%	0.0420%	0.0255%	Electricity Use Intensity ⁸	
Tap Water		16,684	16,161	15,774	kWh	
		0.1230%	0.1070%	0.0656%	Water Use Intensity ⁹	
Renewable Energy		-	-	22,000	kWh	
Annual Revenue			13,569,441	15,107,915	24,039,671	NT\$1,000

⁷ Greenhouse Gas Emission Intensity = Greenhouse Gas Emissions / Annual Net Revenue

⁸ Electricity Use Intensity = Purchased Electricity Consumption / Annual Net Revenue

⁹ Water Use Intensity = Tap Water Consumption / Annual Net Revenue

The Company has set more stringent targets for electricity consumption, water resource utilization, and the use of renewable energy, surpassing government regulations, to actively contribute to achieving the government's goal of net-zero emissions by 2050. The short, medium, and long-term plans for these carbon reduction targets are as follows:

ELECTRICITY CONSUMPTION



WATER CONSUMPTION



RENEWABLE ENERGY



RISK MANAGEMENT PLANNING

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.

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.

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.

TARGETS

Short to medium term (1-10 years):
Continuously implement energy-saving measures, aiming for an annual electricity consumption reduction of at least 1% or more.
Long term (10 years and more):
For the long term, set a target for 2030, aiming to achieve a renewable energy usage ratio of RE20.

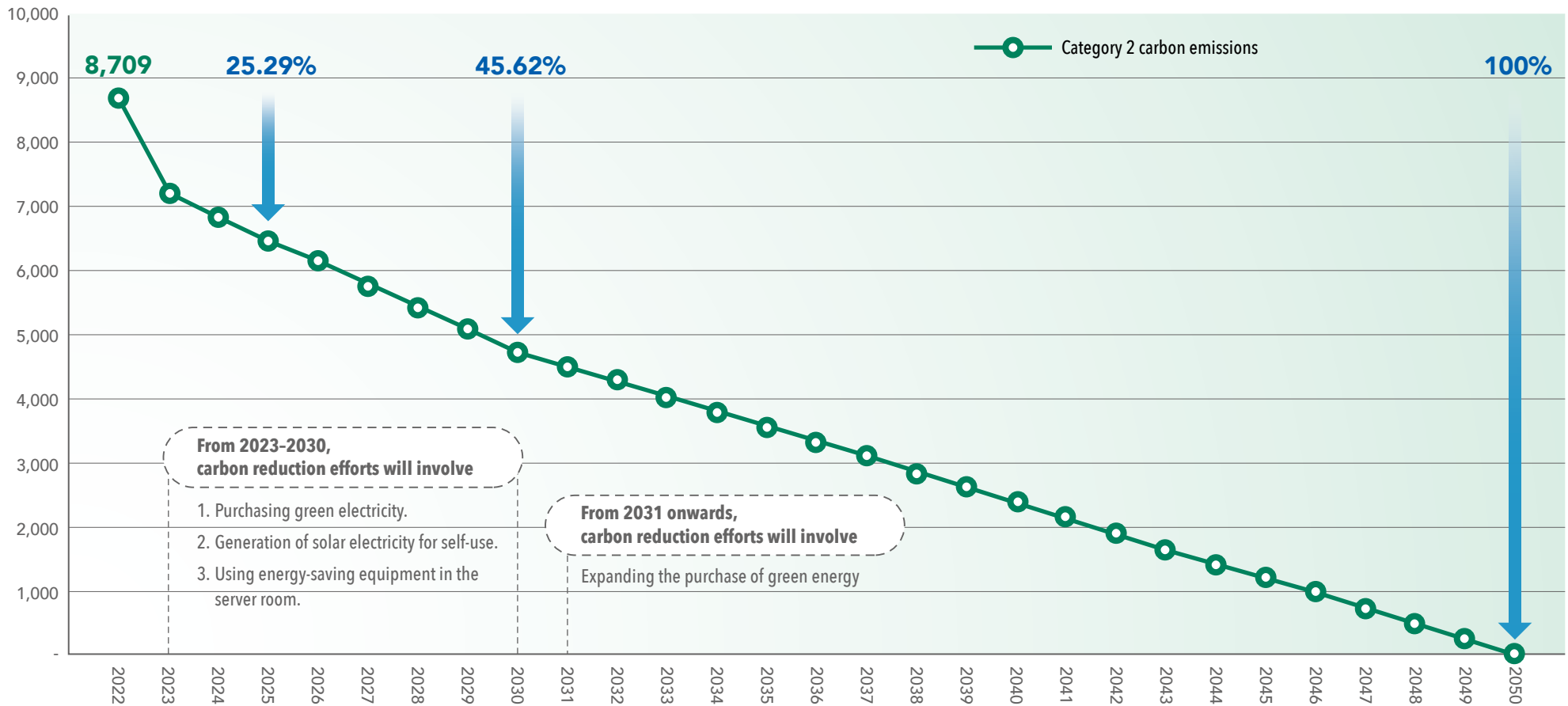
Short to medium term (1-10 years):
Install a rainwater harvesting system for irrigating landscape plants and trees.
Ensure proper operation of automatic sensor faucets in restrooms to control water flow for water-saving and hygiene purposes.
Ensure proper operation of dual-flush water-saving toilets in restrooms, preventing water leaks.
Long term (10 years and more):
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.

Short term (1-3 years):
By 2025, achieve a renewable energy usage ratio of 1%.
Medium term (3-10 years):
By 2030, achieve a renewable energy usage ratio of 3%.
Long term (10 years and more):
After 2030, achieve a renewable energy usage ratio of 10%.

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). The Company has set ambitious goals to reduce its carbon 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.

Due to the high percentage of carbon emissions originating from electricity consumption—which account for 98.03% of direct and indirect energy-related emissions—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 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	19
		3.3 Financial Assessment of Climate-Related Opportunities and Strategies	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. ¹⁰	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

¹⁰ 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 3.3 Financial Assessment of Climate-Related Opportunities and Strategies	19 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
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 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
If scenario analysis is used to evaluate resilience to climate change risks, explain the scenarios, parameters, assumptions, analysis factors, and major financial impacts.	3.1 Climate Change Scenario Setting	15
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 4.1 Greenhouse Gas Emission Indicators	19 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.	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 performed a limited assurance engagement on the selected subject matter information (see Appendix) in the TCFD Report ("the Report") of Global Unichip Corp. ("the Company") for the year ended December 31, 2022.

Responsibilities of Management for the Report

Management is responsible for the preparation of the Report 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 Report that are free from material misstatement.

Auditors' Responsibilities for the Limited Assurance Engagement Performed on the Report

We planned and conducted our work on the selected subject matter information (see Appendix) in the Report in accordance with relevant assurance standards listed in Appendix "Summary of Selected Subject Matter Information" to issue a limited assurance report on the preparation, with no material misstatement in all material respects, of the Report. The nature, timing and extent of procedures performed in a limited assurance engagement are different from and more limited than a reasonable assurance engagement and, therefore, a lower assurance level is obtained than a reasonable assurance.

We applied professional judgment in the planning and conduct 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:

- Obtaining and reading the Report.
- Inquiring management and personnel involved in the preparation of the Report to understand the policies and procedures for the preparation of the Report.
- Inquiring the personnel responsible for the preparation of the Report to understand the process, controls, and information systems in the preparation of the selected subject matter information.
- Analyzing and examining, on a test basis, the documents and records supporting the selected subject matter information.

- 1 -

Inherent Limitations

The subject information included non-financial information, which was under 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 Controls

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 contains integrity, objectivity, professional competence and due care, confidentiality and professional behavior as the fundamental principles. In addition, the firm applies Statement of Quality Management Standard I "Quality Management for Public Accounting Firms" issued by the Accounting Research and Development Foundation of the Republic of China and, accordingly, 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 performed and evidence obtained, nothing has come to our attention that causes us to believe that the selected subject matter information in the Report is, in all material respects, not prepared in accordance with the above mentioned reporting criteria.

Other Matters

We shall not be responsible for conducting any further assurance work for any change of the subject matter information or the criteria applied 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

November 10, 2023

Notice to Readers

For the convenience of readers, the independent auditors' limited assurance report and the accompanying summary of selected 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 selected subject matter information shall prevail.

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APPENDIX

SUMMARY OF SELECTED SUBJECT MATTER INFORMATION

#	Assurance Subject Matter	Descriptions of Indicators	Corresponding Section	Applicable Criteria
1.	Designated indicator 1	If scenario analysis is used to evaluate resilience to climate change risks, explain the scenarios, parameters, assumptions, analysis factors, and major financial impacts.	3.1 Climate Change Scenario Setting 3.2 Financial Assessment of Climate-Related Risks and Strategies	Scenario analysis undertaken by the organization for climate-related physical and transition risks, including selected scenario categories, parameters, assumptions and description of relevant risk responses and financial impacts.
2.	Designated indicator 2	Describe the organization's processes for identifying, assessing, and managing climate-related risks.	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	The organization's policies and procedures for identifying, assessing, and managing climate-related risks, as well as related management processes and response measures based on the identification results.