CH6

Environmental Sustainability

Annual Targets and Performance

In the face of climate change and environmental challenges, environmental sustainability has become a critical foundation for operational decision-making. Through the achievement of Science Based Targets initiative (SBTi) validated science-based reduction targets and the progressive adoption of the IFRS Sustainability Disclosure Standards framework, the Company systematically identifies climate-related risks and opportunities, strengthening information transparency and governance resilience. From decarbonization initiatives to resource management, the Company continues to respond to global sustainability trends through concrete action.

United Nations Sustainable Development Goals (SDGs)

Corresponding Material Topics

Climate Change and Strategic Management

Green House Gas Emissions

Item	2025 Annual Target	2025 Annual Performance	Achieved
Adoption of the Task Force on Climate-related Financial Disclosures (TCFD) framework to identify climate-related risks and opportunities and formulate response directions and measures	Publication of the TCFD Report	Publication of the TCFD Report	✓
IFRS Sustainability Disclosure Standards implementation	Formulate implementation plan	Implementation plan and timeline established	✓
GHG Inventory	Third-party verification under the GHG Protocol passed	Third-party verification under the GHG Protocol passed	✓
SBTi near-term carbon reduction targets	Scope 2 decreased by 4.2%. Scope 3: reduce by 2.5%	Scope 2 decreased by 8.54%. Scope 3 increased by 1.35%	△
Internal carbon pricing	Establishment and completion of internal carbon pricing policy	Internal carbon pricing policy officially took effect in 2025, with shadow carbon pricing mechanism adopted	✓
Annual energy conservation	1%	3%	✓
Annual water conservation	1%	4%	✓
Green electricity usage	1,800,000 kWh	2,000,000 kWh	✓
Waste Disposal	No violations of laws and regulations.	No violations of laws and regulations.	✓

6.1 Climate Change and Environmental Management

6.1.1 Governance Framework for Climate Change

Climate change and environmental risk management and emergency response mechanisms have been incorporated into the Company's overall risk management policy. To strengthen governance and implementation of climate change and sustainability matters, the Company has established an ESG Committee and a Net-Zero Committee under the Director and President (see Section 1.2 of this Report), responsible for coordinating the advancement of corporate sustainability and climate change-related management initiatives. The Executive Secretary reports to the Board of Directors on an annual basis regarding climate change risk management outcomes and improvement results, ensuring that the Board maintains adequate oversight and guidance mechanisms with respect to these matters.

Net Zero Committee

The Company has established a Net-Zero Committee, chaired by the President serving as Chairperson, responsible for coordinating the planning and advancement of the Company's net-zero emissions and climate action initiatives. The Committee's principal responsibilities are as follows:

1. **Advancing and Overseeing Decarbonization Initiatives**

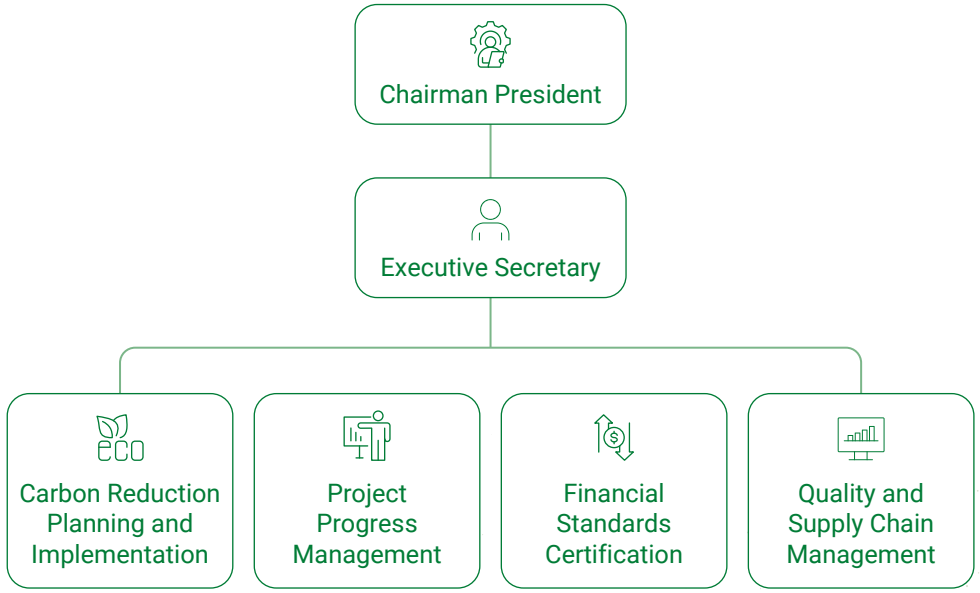
   Establishing implementation timelines for each workstream and regularly tracking and monitoring execution progress:
   - **Energy management:** encompassing energy conservation measures, renewable energy generation, and power purchase planning
   - **Supply chain management:** collaborating with key suppliers to jointly reduce overall supply chain carbon emissions
   - **Certification and disclosure management:** aligning with international standards, executing decarbonization work in accordance with SBTi requirements, and preparing and issuing TCFD reports
2. **Institution Building and Capacity Development**

   Formulating talent development plans, carbon reduction strategy targets, and control mechanisms; advancing greenhouse gas inventory, internal verification, and external assurance processes; and coordinating the disclosure of climate-related information in the sustainability report.
3. **Board Oversight Support**

   Assisting the Board of Directors in monitoring the phased targets and implementation outcomes of net-zero emissions initiatives, and strengthening the quality and effectiveness of the Company's climate governance decision-making.

In 2025, the GUC Net-Zero Committee convened two meetings, both chaired personally by the President.

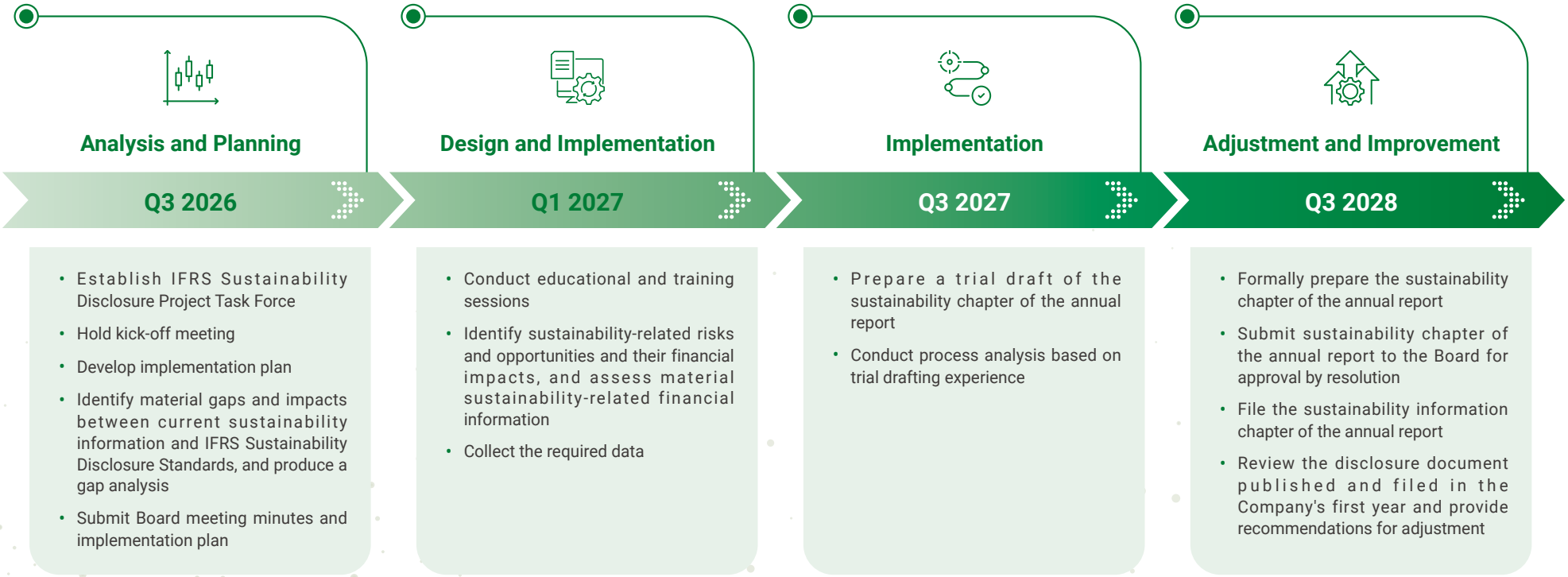
Net-Zero Committee Organization



6.1.2 Climate Risk and Opportunity Response

IFRS Sustainability Disclosure Standards Implementation

In response to international sustainability disclosure trends, GUC initiated its IFRS Sustainability Disclosure Standards adoption planning at the end of 2025, establishing a related implementation timeline and internal preparation mechanisms. Building on its existing sustainability information management foundation, the Company will progressively align with the IFRS Sustainability Disclosure Standards framework and disclosure requirements to strengthen the consistency and comparability of sustainability information.



Climate-Related Financial Disclosures

GUC follows the Task Force on Climate-Related Financial Disclosures (TCFD) framework to systematically identify and assess climate-related risks and opportunities that may affect Company operations, incorporating the relevant findings into corporate governance and decision-making considerations. For the 2025 TCFD Report, please refer to the Company's Official Website.

In addition, the Company has completed its climate risk assessment and formulated a concrete net-zero decarbonization implementation plan on that basis. Implementation progress is reported to the Board of Directors by the management team on a regular basis to ensure the effective execution of the Company's climate strategy.

Governance	• Since 2010, the Board of Directors has adopted the Risk Management Policy as the overarching governing principle • Each management unit regularly assesses risks and reports to the Operations Management Risk Committee • The ESG Committee and Net-Zero Committee oversee climate change-related initiatives
Risk Management	• The Net-Zero Committee coordinates the TCFD cross-functional project team • Senior officers from each unit are convened for cross-functional communication • Response measures are formulated to mitigate financial losses and convert potential opportunities into corporate value • **Risk management process:** Establish project team ⇒ Scenario analysis ⇒ Identify risks and opportunities ⇒ Formulate response measures ⇒ Set metrics and targets ⇒ Issue TCFD Report
Strategy	• Identification of material climate risks and opportunities: - Transition risks: renewable energy regulations and carbon fees; shifts in customer behavior - Climate opportunities: adoption of low-carbon energy; deployment of energy-efficient equipment • Risk scenario analysis: - Transition risk: SSP5 baseline scenario - Physical risks: RCP 8.5 simulations for flooding, extreme heat, and changes in consecutive dry days (For related financial impacts and strategies, please refer to Chapter 3 of the TCFD Report)
Metrics and Targets	• Organizational greenhouse gas inventory and management conducted since 2019 • ISO 14064-1:2018 external verification introduced in 2021 • Carbon neutrality/net-zero target for 2050 committed and carbon footprint disclosed from 2022 • Joined SBTi in 2023; first application of GHG Protocol for 2022 inventory • Greenhouse gas inventories for 2024 and 2025 have both passed verification • For 2025 Group inventory results, please refer to Section 6.2.1 of this Report

6.1.3 Environmental Management Policy and System

GUC complies with relevant government environmental regulations and has established an integrated management system that integrates environmental management into organizational operations through the Plan-Do-Check-Act (PDCA) management cycle. The Company enhances environmental and efficiency performance by formulating, promoting, and maintaining environmental management systems and action plans; reviewing overall operational processes; conducting greenhouse gas inventories and reduction initiatives; conducting water resource inventory management and implementing waste reduction and recycling measures to manage greenhouse gas emissions at the source.

As a professional system-on-chip design services company, GUC recognizes environmental protection, safety, and health as the cornerstones of its operations. The Company continuously improves product and service quality and is committed to achieving zero workplace incidents and environmentally sustainable development, while serving as an industry benchmark for environmental protection, safety, and health.

To achieve the foregoing objectives, GUC actively implements the following environmental policies:

1. Ensure that operations and services comply with, or exceed, applicable laws, regulations, and standards pertaining to environmental protection, safety, and health.
2. Place environmental improvement at the core of operations by promoting green design and providing green products and services.
3. Establish a safe working environment, prevent occupational injuries and illnesses, and safeguard the physical and mental well-being of employees.
4. Assess risks associated with global environmental protection, safety, and health issues and implement effective control measures.
5. Strengthen awareness of and accountability for environmental protection, safety, and health among all employees, and cultivate a culture of environmental stewardship.
6. Build a green supply chain and continuously improve the occupational health and safety management system, enhancing overall performance through experience sharing and collaboration.
7. Strengthen communication and engagement with all stakeholders, proactively disclose and share relevant information, and promote a positive cycle of value creation for the industry and society.

GUC has established an ISO 14001 Implementation Committee chaired by the President, with members nominated by each unit. The Committee is responsible for establishing, implementing, and periodically reviewing the environmental management system, planning internal audit programs, and ensuring conformance with the ISO 14001:2015 standard, including the latest standard updates. The Committee identifies significant environmental aspects annually and proposes improvement measures, promoting participation and awareness among all employees across the organization.

In 2025, the Company continued to maintain the operation of its environmental management system and obtained ISO 14001:2015 certification. Through this system, the Company effectively manages environmental impacts and mitigates the risk of penalties arising from environmental liability.

• ISO 14001 Certification

Biodiversity

GUC's global operational sites are located primarily in technology parks or office buildings, and the Company does not conduct operational activities at sites of significant biodiversity importance.

- The Company nonetheless actively responds to the United Nations Convention on Biological Diversity (CBD) and related initiatives, and is committed to advancing the following United Nations Sustainable Development Goals (SDGs):

Biodiversity Commitments

- Ensure that operational activities comply with international, national, and local laws pertaining to biodiversity and zero deforestation.
- Avoid operating in areas of global or national biodiversity significance.
- Avoid harm to endangered and protected species, and promote environmental education and ecological restoration.
- Support education on nature and biodiversity to raise awareness of environmental stewardship and ecological conservation.
- Comply with international and local laws and regulations relating to forests in jurisdictions where the Company operates, and avoid deforestation.
- Collaborate with supply chain partners to reduce biodiversity impacts, foster harmonious coexistence between business and the environment, and address the ecological challenges posed by climate change.

Highlight

Environmental Management in Action

Corporate Planting Program and Biodiversity Conservation

The Company has incorporated campus greening and biodiversity conservation into its environmental management operations. Through regular plant maintenance, pruning, fertilization, and pest and disease control, the Company sustains the health and ecological value of its green areas. Qualified technicians conduct regular campus inspections and manage plants in accordance with their individual characteristics to ensure stable long-term growth.

In 2025, the Company planted five new Buddhist pines, representing an investment of approximately NT$97,300. Through the selection of climatically adaptable tree species, the Company has enhanced the landscape quality of its campus and strengthened ecological diversity, reflecting its concrete commitment to the protection of the natural environment.

6.2 Toward Net-Zero Emissions by 2050

On December 4, 2025, the Board of Directors of GUC reviewed the Company's climate change response and greenhouse gas reduction progress for the year, approved environmental and carbon reduction action targets for subsequent years, and continued to oversee the advancement of the Company's climate action and decarbonization strategies. In addition to the ongoing implementation of its climate targets, the Company proactively publishes a TCFD Report to enhance the transparency of climate-related disclosures, enabling investors and stakeholders to gain a comprehensive understanding of the Company's approach to managing climate-related risks and opportunities.

With respect to the establishment of decarbonization targets, the Company actively participates in the Science Based Targets initiative (SBTi). Using 2022 as the base year and under a scenario consistent with limiting global temperature rise to 1.5° C, the Company has set near-term targets to reduce Scope 2 greenhouse gas emissions by 42% and Scope 3 greenhouse gas emissions by 25% by 2030, and has further established a long-term net-zero target to reduce total greenhouse gas emissions by 90% by 2050. All decarbonization targets and implementation progress are subject to regular review and oversight by the Board of Directors to ensure that decarbonization actions remain aligned with the Company's medium- and long-term development strategy.

SBTi Commitments and Action Pathway

- **2022:** Completed greenhouse gas inventory and established the SBTi base year.
- **2023:** Formally submitted the SBTi target-setting application, demonstrating the Company's commitment to decarbonization.
- **2024:** Near-term and long-term SBTi targets validated; target implementation phase initiated.
- **2030:** Achievement of SBTi near-term targets — 42% reduction in Scope 2 emissions and 25% reduction in Scope 3 emissions.
- **2050:** Achievement of SBTi long-term targets — 90% reduction in total Scope 1, 2, and 3 emissions, realizing the net-zero emissions vision.

6.2.1 GHG Inventory

GUC recognizes the impact of climate change on its operations and the environment. The Company has conducted voluntary greenhouse gas inventories and management since 2019 and continuously refines its inventory methodologies and management mechanisms. Since 2021, the Company has conducted greenhouse gas inventories in accordance with the ISO 14064-1:2018 standard and subjects the results to third-party verification to ensure the accuracy and reliability of inventory outcomes.

Consistent with the base year adopted for participation in the Science Based Targets initiative (SBTi), the Company uses 2022 as the base year for its greenhouse gas inventory and management, facilitating subsequent carbon reduction performance tracking and alignment with international practice. The organizational boundary is defined using the operational control approach, and the organizational boundary is consistent with the consolidated financial reporting boundary. To conform to SBTi requirements for the classification and disclosure of Scope 3 emissions, the Company revised its inventory methodology beginning in 2023 to conduct inventory operations in accordance with the GHG Protocol.

The greenhouse gas inventory for 2025 has been completed. Third-party verification of the inventory results will be completed in the second quarter of 2026 to ensure the completeness and credibility of the disclosed information and to align with international sustainability disclosure trends.

Greenhouse Gas Emissions Overview

The Company's greenhouse gas emissions are primarily composed of Scope 3 other indirect emissions. Based on the results of the greenhouse gas inventory, the emission sources under each scope are described as follows:

Scope 1 — Direct Emissions:
Primarily comprising greenhouse gas emissions from stationary combustion sources (such as diesel consumption by emergency generators), mobile combustion sources (such as gasoline consumption by company vehicles), and fugitive emission sources (such as refrigerant recharging and fire extinguisher use).

Scope 2 — Energy Indirect Emissions:
Primarily comprising indirect emissions from energy consumption associated with office operations, including purchased electricity and other purchased energy.

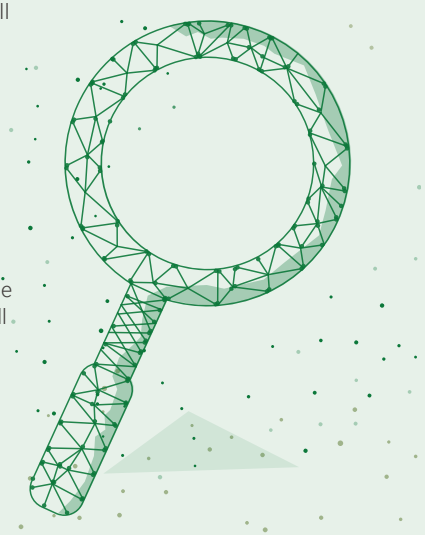
Scope 3 — Other Indirect Emissions:
Currently inventoried in accordance with GHG Protocol Categories 1 through 7 (C1–C7), encompassing purchased goods and services, capital goods, fuel- and energy-related activities, upstream transportation and distribution, waste generated in operations, business travel, and employee commuting.

The Company's 2025 greenhouse gas (GHG) inventory results indicated that total emissions under the market-based approach amounted to 117,306.76 tCO_2e, representing a slight increase from the previous year, while total emissions under the location-based approach were 118,254.76 tCO_2e. Scope 3 emissions remained the primary source, accounting for 92.88% of total emissions and serving as the key focus of the Company's carbon management efforts, while Scope 2 and Scope 1 emissions accounted for 6.96% and 0.16%, respectively.

In terms of emissions by scope, Scope 1 emissions increased by approximately 6.98% compared to 2024. Scope 2 emissions, calculated using the market-based approach, decreased by approximately 8.5%, demonstrating the gradual effectiveness of the Company's electricity management and renewable energy adoption initiatives. Although Scope 3 remained the largest source of emissions, the year-on-year increase was limited to approximately 1.35%, indicating a relatively stable overall trend. The increase in Scope 3 emissions was primarily attributable to the expansion of inventory boundaries, updates to emission factors, and changes in operational activities, including the addition of waste transportation and septic tank emissions at the Vietnam site, as well as updated waste treatment emission factors at the Japan site.

Regarding emissions intensity, the Company's revenue-based emissions intensity (market-based) in 2025 was 3.436 tCO_2e per NT$ million in revenue, representing a significant decrease from 4.700 in 2024. Although total emissions under the location-based approach increased slightly from 117,719 tCO_2e to 118,254 tCO_2e, overall emissions intensity declined significantly due to revenue growth during the year. This demonstrates that, while continuing to expand its operations, the Company also advanced energy management, improved energy efficiency, and strengthened carbon management performance.

Compared with the base year 2022, the Company's greenhouse gas emissions have changed due to the expansion of the inventory boundary and improvements in data collection processes, which have enhanced the completeness of Scope 3 emissions. The Company will continue to strengthen management of key emission sources as a basis for its decarbonization strategy.



Greenhouse Gas Emissions Analysis Table

(Unit: tCO_2e)

		2022		2023		2024		2025	
		Emissions	Percentage	Emissions	Percentage	Emissions	Percentage	Emissions	Percentage
Scope 1		174.8613	1.67%	933.0934	0.45%	172.5808	0.15%	184.6315	0.16%
Scope 2	Market-Based	—	—	—	—	8,926.3159	7.66%	8,163.6456	6.96%
	Location-Based	8,708.6177	83.08%	9,417.9627	4.58%	10,038.3099	8.53%	9,111.6456	7.71%
Scope 1+Scope 2	Market-Based	—	—	—	—	9,098.8967	7.81%	8,348.2771	7.12%
	Location-Based	8,883.4790	84.75%	10,351.0561	5.03%	10,210.8907	8.68%	9,296.2771	7.86%
Scope 3		1,598.0109	15.25%	195,464.2331	94.97%	107,508.1447	92.20%	108,958.4790	92.88%
Total GHG Emissions	Market-Based	—		—		116,607.04		117,306.76	
	Location-Based	10,481.49		205,815.29		117,719.04		118,254.76	
Annual Revenue (NT$ million)		24,040		26,241		25,044		34,141	
Emission intensity (tCO_2e per NT$ million of revenue)	Market-Based	—		—		4.657		3.436	
	Location-Based	0.436		7.845		4.700		3.464	

Note: 1. Emission factors are sourced from the greenhouse gas emission factors announced by the Ministry of Environment on February 5, 2024.

2. The global warming potential (GWP) values for each greenhouse gas are based on estimates from the Sixth Assessment Report (AR6) of the Intergovernmental Panel on Climate Change (IPCC).

3. Greenhouse gases covered under Scope 2: CO_2; greenhouse gases covered under Scope 3: CO_2, CH_4, HFCs.

4. Following official discussion and approval with SBTi, and given that GUC has no proprietary products, activities under Categories 8 through 15 are not required to be included in Scope 3 greenhouse gas emissions.

Scope 1 Seven Greenhouse Gases Emissions Statistics Table

	2023		2024		2025	
	Emissions (tCO_2e)	Percentage (%)	Emissions (tCO_2e)	Percentage (%)	Emissions (tCO_2e)	Percentage (%)
CO_2	7.3665	0.7895	8.8741	5.1420	8.8546	4.7958
CH_4	2.732	0.2929	3.4852	2.0195	4.1025	2.2220
N_2O	0.2127	0.0228	0.2356	0.1365	0.2550	0.1381
HFCs	922.7781	98.8945	159.9825	92.7001	171.4160	92.8422
PFCs	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
SF_6	0.0035	0.0004	0.0024	0.0000139	0.0034	0.0018
NF_3	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	933.0934	100.0000	172.5808	100.0000	184.6315	100.0000

Highlight

1.5° C Temperature Control Label: Third-Party Recognition of Carbon Reduction Performance

GUC has been awarded the Corporate Carbon Reduction Thermometer — 1.5° C Temperature Control Label by Common Wealth Magazine, and has been recognized as an Outstanding Performance enterprise for three consecutive years. This reflects 'our concrete demonstration, through its actual carbon reduction actions and net-zero transition pathway, of results aligned with the 1.5° C climate target.

The label is assessed through the Corporate Carbon Reduction Thermometer (TRIPs) platform, jointly developed by Common Wealth Magazine and Tunghai University. Drawing on climate models from the Sixth Assessment Report (AR6) of the United Nations Intergovernmental Panel on Climate Change (IPCC), the platform comprehensively evaluates a company's historical carbon reduction performance, current emissions levels, and future reduction targets to determine the degree of alignment with the global goal of limiting temperature rise to 1.5° C.

6.2.2 Greenhouse Gas Emission Reduction Initiatives

GUC continues to implement a broad range of carbon reduction measures spanning day-to-day behavioral practices and equipment management, with a view to reducing greenhouse gas emissions and advancing environmental sustainability. In the office environment, we encourage employees to take the stairs, switch off lights when leaving, and power down unused computer monitors and other equipment, progressively cultivating an energy-saving culture. Natural lighting is maximized where feasible; skylights have been installed in select common areas, and energy conservation reminders are posted in restrooms and at power switches to raise awareness. In the area of equipment management, electronic timers and a central monitoring system are deployed to precisely regulate the operating schedules of water dispensers, air conditioning units, and ventilation equipment, preventing unnecessary energy consumption. High-efficiency, energy-saving appliances and lighting fixtures are selected, and air conditioning systems undergo regular maintenance to sustain optimal performance. Further optimization of air conditioning and cooling systems has been undertaken through measures such as temperature setpoint adjustments and the adoption of control valves, achieving additional reductions in energy consumption.

Internal Carbon Pricing

To strengthen internal carbon reduction management, GUC formally established an Internal Carbon Pricing (ICP) mechanism in 2025, setting a shadow carbon price of NT$300 per metric ton of CO_2 equivalent. Carbon emission costs are incorporated into the cost-benefit analysis of energy conservation and carbon reduction projects, informing investment and project decision-making. This mechanism facilitates the quantification of carbon emission risks, prioritizes energy and equipment investment, incentivizes departments to proactively advance carbon reduction initiatives, and further supports the attainment of the Company's net-zero emissions target by 2050. Going forward, the Company will periodically evaluate and review the operation and effectiveness of the internal carbon pricing mechanism to continuously optimize its carbon reduction strategy and resource allocation.

Daily Energy Conservation Practices

- Take the stairs more often
- Switch off lights when leaving
- Power down unused monitors
- Utilize natural lighting

Equipment Management Optimization

- Electronic timers / monitoring system
- High-efficiency, energy-saving equipment
- Air conditioning and cooling system optimization
- Regular equipment maintenance

Internal Carbon Pricing Implementation

- Shadow carbon price of NT$300 per metric ton
- Carbon costs incorporated into investment decisions
- Guidance toward prioritized carbon reduction actions
- Support for net-zero targets

Highlight

Annual Energy Conservation and Carbon Reduction Projects

- 2 energy-saving investment measures implemented in 2025
- Total investment: NT$2.69 million
- Annual electricity savings: 89,741 kWh
- Annual carbon reduction: 42.5 tCO_2e

Key Energy Conservation Measures and Performance

Measures	Scope	Annual Carbon Reduction	Annual Energy Savings
Installation of variable frequency drives on chilled water pump sets	Scope 2	40 tCO_2e / year	84,467 kWh (304.08 GJ)
Installation of window heat-insulating film in offices (3F, 5F)	Scope 2	2.5 tCO_2e / year	5,274 kWh (18.99 GJ)

Note: 1. 1 kWh = 3,600,000 Joules

2. Source of measure guidance: GUC participated in the Industrial Technology Research Institute's High-Efficiency Motor Application Promotion Project, implementing variable frequency drive additions to the chilled water chiller and optimizing the chilled water circulation pump system.
3. Electricity-to-CO_2 conversion: Based on the 2024 grid electricity carbon emission factor — 1 kWh ≈ 0.474 kg CO_2.

6.3 Energy Management

To improve energy use efficiency and reduce greenhouse gas emissions, GUC continues to plan a range of low-carbon energy solutions. The Company has evaluated the introduction of a fuel cell power generation system, with a planned installation capacity of 1.3 MW in 2026, to be expanded incrementally in accordance with operational requirements and overall energy planning, with a total planned capacity of 2.6 MW. Fuel cells offer high power generation efficiency, low-emission output, and stable electricity supply, contributing to enhanced energy resilience and reduced carbon emission risk.

The Company's energy consumption originates primarily from facilities operations and office equipment. The sole energy source is purchased electricity supplied via the Taiwan Power Company grid, classified as Scope 2 emissions, accounting for 100% of total energy consumption. In 2025, electricity consumption at the Hsinchu headquarters totaled 5,599,900 kWh. In response to climate change risks and in pursuit of sustainable operations, the Company has established energy conservation and carbon reduction targets. Through measures including improvements to facilities equipment performance, replacement of aging equipment, and optimization of energy use management, the Company continuously reduces energy consumption.

In parallel, energy conservation and carbon reduction initiatives are promoted across facilities and office environments, combining institutional frameworks with education and awareness campaigns to enhance employees' energy management competency and environmental sustainability awareness, encouraging staff to practice energy conservation and collectively reduce the operational impact on the environment.

Headquarters Electricity Consumption (Scope 2) and Greenhouse Gas Emissions Statistics Table

	2023	2024	2025
Electricity Consumption (kWh)	5,930,900	5,767,000	5,599,900
GJ	21,351	20,761	20,160
tCO_2e	2,977	2,849	2,654

Note: 1. Calculated using the 2024 grid electricity carbon emission factor of 0.474 kg CO_2e/kWh.
2. 1 kWh = 3,600,000 Joules
3. Electricity carbon emissions = (electricity consumption in kWh × applicable annual grid emission factor) ÷ 1,000
4. Reported in tonnes of CO_2 equivalent (tCO_2e) in accordance with GRI Standards.

Headquarters Energy Intensity Statistics Table

	2023	2024	2025
Annual Revenue (NT$ million)	26,241	25,044	34,141
Annual Electricity Consumption (GJ)	21,351	20,761	20,160
Energy Intensity	0.81	0.83	0.59

Note: 1. Energy intensity calculation: annual electricity consumption (GJ) ÷ annual revenue (NT$ million)
2. The headquarters energy intensity summary excludes renewable energy.

6.3.1 Renewable Energy

Solar power generation

The self-generated solar photovoltaic system was completed and commissioned in 2023, serving as one of the measures to increase the proportion of renewable energy use. In 2025, the solar photovoltaic system generated 48 GJ of electricity, primarily supplying day-to-day office electricity needs, contributing to a reduction in purchased electricity demand and associated greenhouse gas emissions.

The Company continues to evaluate the feasibility of deploying self-generated solar photovoltaic systems at additional office locations, taking into account factors including spatial conditions, geographic positioning, regulatory compliance, and electrical safety, with planning aligned to existing electricity consumption patterns, so as to progressively increase the proportion of renewable energy use and strengthen the low-carbon energy portfolio.

Solar power generation

	2023	2024	2025
Solar Photovoltaic System Generation (GJ)	49	49	48

Purchased Green Electricity

External procurement of green electricity commenced in late 2023 to supplement renewable energy supply and accelerate the energy transition. In 2025, purchased green electricity consumption totaled 7,200 GJ, accounting for approximately 36% of total electricity consumption at the Hsinchu headquarters. The Company is committed to continuously increasing the proportion of purchased green electricity and has set RE20 by 2030 as its medium- to long-term target, progressively reducing operational dependence on fossil-based energy sources and promoting the stable adoption of renewable energy.

Purchased External Green Electricity

	2023	2024	2025
Purchased External Green Electricity (GJ)	5	8,104	7,200
Proportion of Total Electricity Consumption	0.02%	39%	36%

6.4 Water Resource Management

6.4.1 Water Resource Risk Assessment

Amid growing water resource challenges and increasing demands for sustainable development, GUC demonstrates a sound strategy and execution capability in water resource management. The Company will continue to optimize its water resource management program on the basis of responsible stewardship, and actively explore further water-related innovation and collaboration opportunities, with a view to achieving a more efficient and resilient water resource management system that contributes to the sustainable development of the environment and society.

Practices and Outcomes in Water Resource Risk Management:

Water Resource Management Program and Implementation	At the corporate level, a dedicated ESG Committee is responsible for establishing annual water conservation targets and related management programs. The Committee reports implementation status and outcomes to the Strategy and Sustainability Committee and the Board of Directors on a regular basis, ensuring transparency and effectiveness in program execution. The Company is committed to achieving an annual water conservation target of 1%, supported by specific water-saving measures to improve water use efficiency.
Water-Stressed Areas and Wastewater Management	GUC's operating locations are not situated in areas of high water stress. Wastewater consists primarily of domestic sewage, which is treated at regional wastewater treatment facilities prior to discharge into natural water bodies, ensuring no adverse impact on the local environment. The Company engages actively with relevant stakeholders to promote sustainable water resource management in the communities where it operates.
Regulatory Compliance and Transparency	GUC sources 100% of its water supply from Taiwan Water Corporation (freshwater). No groundwater, surface water, or rainwater is used, and accordingly no negative impact on the surrounding environment or water quality is generated. Water consumption is attributable primarily to air conditioning systems and employees' domestic use, encompassing drinking, washing, and facility cleaning purposes. In terms of regulatory compliance in water resource management, the Company has recorded zero violations, reflecting its strong commitment to meeting water quality and quantity regulatory requirements and actively upholding applicable standards.
Risk and R&D Investment	The Company's assessment indicates no significant water resource risks in its operations; accordingly, no dedicated research and development investment has been directed toward water-related risk mitigation. Nonetheless, the Company continues to explore more effective water use strategies and promotes a water conservation culture internally to reduce potential future risks.
Third-Party Verification and Collaborative Initiatives	The Company has not yet pursued third-party verification of its water resource management practices, nor has it adopted international assurance standards. Nonetheless, the Company promotes water conservation measures on a company-wide basis and continues to improve internal water resource management performance. While the Company does not currently participate in global or local water resource initiatives, nor engage with other companies in industrial ecology frameworks, these areas represent potential directions for further enhancement of sustainable water resource management in the future.

6.4.2 Water Use Intensity

GUC maintains long-term records of water consumption data to document ’our use of local water resources and calculate the corresponding CO_2 equivalent figures based on recorded consumption. All wastewater generated at the GUC headquarters consists of domestic sewage. Wastewater discharge is processed lawfully through the sewerage system in compliance with the regulatory standards administered by the Hsinchu Science Park Bureau. Total water consumption in 2025 was 16.68 ML. No incidents of pollution occurred, and no significant impact on environmental water sources was recorded.

Headquarters Water Withdrawal and Greenhouse Gas Emissions Summary

	2023	2024	2025
Total Water Withdrawal (ML)	16.59	17.24	16.68
Total Water Discharge (ML)	16.13	16.86	16.06
Total Water Consumption (ML)	0.46	0.38	0.62

	2023	2024	2025
Water Withdrawal (ML)	16.59	17.24	16.68
tCO_2e	2.521	2.689	2.601
kg CO_2e / Employee	4.88	5.20	4.86

Note: 1. Based on the water supply carbon emission factor published by Taiwan Water Corporation for 2023: 0.156 kg CO_2e per cubic meter of water.
2. Reported in tCO_2e in accordance with GRI Standards.
3. 1,000 cubic meters (m^3) = 1 megaliter (ML)

Headquarters Water Use Intensity Statistics Table

	2023	2024	2025
Annual Water Consumption (ML)	16.59	17.24	16.68
Headquarters Headcount	517	516	535
Water Use Intensity	0.032	0.033	0.031

Note: Water use intensity = annual water use (ML) ÷ headcount

Water Conservation Performance and Reclaimed Water Utilization

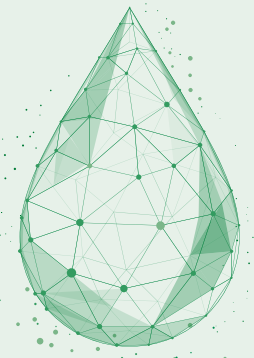
In pursuit of meaningful conservation of the earth's finite water resources, GUC has established and implements the following measures to achieve sustained reductions in water consumption.

Water Reduction Measures:

- Reduction of cooling tower blowdown volume to decrease air conditioning water consumption.
- Reduction of faucet flow rates to decrease domestic water consumption.

Ongoing Water Conservation Measures:

- Installation of a rainwater harvesting system for irrigation of landscaping and greenery.
- Maintenance of toilet automatic sensor faucets to ensure proper operation, controlling flow output for water conservation and hygiene purposes.
- Maintenance of dual-flush water-saving toilets to ensure proper operation and prevent water leakage.
- Strengthened periodic inspection of water-related equipment to improve facility serviceability and enable timely repair of defects.
- Alignment with Hsinchu Science Park Bureau policy to intensify water conservation measures during designated conservation periods, with daily water consumption recorded to meet the Bureau's monthly water reduction targets.
- Continued promotion of water conservation practices through internal communications and posting of water-saving reminders to cultivate water-conscious habits among employees.



6.5 Waste Management

6.5.1 Policy Objectives

GUC upholds the principles of green production and responsible manufacturing, striving to minimize waste generation and environmental impacts throughout its operations. GUC actively promote sustainable development, ensuring that our business activities have minimal negative effects on the environment while complying with international environmental regulations. To this end, GUC have established the following waste reduction and management goals:

Environmental Regulatory Compliance:
Fully comply with regulations such as the Conflict-Free Minerals Certification, the EU Restriction of Hazardous Substances Directive (EU RoHS), the EU PFOS Directive, and other international environmental laws, ensuring that all waste management processes meet environmental protection requirements.

Waste Chip Management Target:
All waste chips will be handled by professional waste recycling contractors, with a target annual recycling rate of over 95%.

6.5.2 Management Measures

As a non-manufacturing company, GUC's waste management measures focus on the various types of waste generated in office environments, employee activities, and internal operations. Our waste management approach is centered on the principles of Reduce, Reuse, and Recycle, and is implemented in the following areas:

Waste Reduction in Office Environments	We promote paperless office practices to reduce paper consumption and strengthen employees' environmental awareness, encouraging the use of electronic documents and online collaboration tools. In addition, we require all office areas to segregate waste, to increase the recycling rate of recyclable materials.
Reduction of Packaging Materials and Supplies	In the course of our products and services operations, we emphasize minimizing the use of packaging materials. All packaging materials, including cartons, cushioning foam, wafer carriers, and chip trays, are selected from recyclable materials that meet environmental requirements. We also require our suppliers to adhere to standards for using recyclable packaging, further reducing environmental impacts.
Waste Chip Management	Waste chips are one of the key types of waste generated during operations. All waste chips are handled by certified professional waste recycling contractors. These contractors ensure 100% recycling of waste chips while complying with all relevant environmental regulations, minimizing environmental impacts.
Employee and Supply Chain Environmental Actions	To reduce internal waste, we provide employees with eco-friendly chopstick sets upon onboarding, reducing the use of disposable bamboo chopsticks and further decreasing waste generation. In the employee cafeteria, we use reusable tableware, encouraging employees to participate in environmental actions in their daily lives.
Supply Chain Management and Compliance Control	GUC requires suppliers to follow environmental requirements, fully utilize recycled packaging materials, and minimize environmental impacts. We regularly review and strengthen supply chain management to ensure all partners comply with environmental standards, and conduct annual environmental compliance assessments of our suppliers.

6.5.3 Waste Treatment Outcomes

To ensure the achievement of waste management objectives, GUC regularly monitors and discloses the effectiveness of waste treatment, providing specific data publicly.

As a company focused on customized IC design and sales, we are responsible for the design and sale of chips but do not engage in manufacturing, packaging, or testing operations. The hazardous waste disclosed in this report is not generated from manufacturing processes. It mainly consists of defective IC samples from chips provided by vendors for testing. These defective ICs are processed for disposal according to established procedures and sent to certified waste treatment contractors that have received an rated A from the Ministry of Environment and hold ISO 14001 and ISO 9001 environmental management system certifications. The ICs are shredded and disposed of in compliance with international environmental management standards.

Regarding waste reduction and management, since GUC's primary waste sources are office-generated office waste and recyclable materials, the focus is on implementing waste classification and promoting employee awareness programs. The handling of waste chips is entrusted to professional waste recycling contractors, with a maintained 100% recycling rate. This practice will continue to be upheld to ensure long-term environmental safety and sustainability commitments.

Headquarters waste disposal Status

	Hazardous Industrial Waste (Unit: Metric Tons)	General Industrial Waste (Unit: Metric Tons)				Domestic Waste (Unit: Metric Tons)
	Waste IC	Paper	Iron	Plastics	Waste PC	Employee Domestic Waste
2023	0.932	0.94	0	0	0	202.525
2024	0.255	0.874	0	0	0	218.153
2025	0.329	1.868	0	0	0	227.066
Total	1.516	3.682	0	0	0	647.744
Disposal Method	Consigned removal (recovered and recycled by recyclers)					Incineration (including energy recovery)

Note: 1. All licensed waste management contractors or privately operated waste removal and treatment institutions licensed by the competent authority to remove and treat the relevant categories of waste. No regulatory violations occurred in 2023–2025.

2. In 2025, no industrial waste treatment costs were incurred due to the high precious metal content of the waste.

3. Domestic waste figures are estimated using a per capita estimation method. Estimation formula: Hsinchu headquarters headcount × annual average daily waste generation per person (metric tons) × annual working days. Environmental statistics database references: 2023 average daily waste generation per person: 0.00132 metric tons; 2024 average daily waste generation per person: 0.0017253 metric tons; 2025 average daily waste generation per person: 0.0017253 metric tons.

4. GUC's hazardous industrial waste, general industrial waste, and domestic waste are consigned to qualified contractors for off-site treatment.

GUC will continue to improve its waste management system and explore innovative resource recycling technologies and management models. In the future, we will further strengthen cross-departmental collaboration and continue to enhance the environmental awareness of employees, suppliers, and stakeholders, working together to achieve our environmental protection goals.