

2023

Wistron NeWeb Corporation TCFD Report



Table of Contents



Introduction

About this Report

A Message from the Chief Sustainability Officer

1

Climate Governance

Board of Directors
Governance Structure
Management Level
Responsibilities

2

Climate Strategy

Identification of Climate-related
Risks and Opportunities
Climate Scenario Analysis

3

Risk Management

Risk Management Structure
Mitigation and Adaptation

4

Metrics and Targets

Organization GHG Emissions
Short-, mid-, and Long-term
Climate Transition Plan

5

Appendix

TCFD Recommendations
Comparison Chart
Third Party Performance
Evaluation Declaration

About this Report

This report is prepared by Wistron NeWeb Corp. (WNC) with reference to the Recommendations of the Task Force on Climate-related Financial Disclosures (TCFD). The purpose of the report is to inform stakeholders about WNC's climate change-related risks and opportunities, as well as its strategies and goals for transitioning towards a low-carbon future. For more information on the environmental, social, and governance aspects, please refer to WNC's Sustainability Report.

This report is produced in both Chinese and English, and is posted on WNC's ESG website. We strive to maintain clear lines of communication with all stakeholders.

Reporting Period

January 1, 2023 to December 31, 2023.

Scope

The report covers information regarding operations at WNC's headquarters (HQ) in the Hsinchu Science Park, the S1 site located on Lihsin Rd., and the S3 Plant located in the Tainan Science Park, WNC (Kunshan) Corporation, NeWeb Service (Kunshan) Corporation, WebCom Communication (Kunshan) Corporation - Kunshan Plant, WebCom Communication (Kunshan) Corporation - Nanjing Branch, and Neweb Vietnam Co., Ltd..

Some of the content covers our R&D center in Taipei's Neihu district, W-NeWeb Co., WNC UK Limited., NeWeb GmbH, WNC Japan Inc., and service centers, as remarked in the Report.

External Assurance

The Report has been verified by SGS Taiwan Ltd., an independent third-party organization, in June 2024, and WNC received a TCFD Performance Assessment Statement (as Appendix 5.2). The statistics in this Report are consistent with those in WNC's 2023 Sustainability Report.

Contact Information

If you have any questions or suggestions feel free to contact us at any time:

WNC Sustainable Development & Marketing Division

Address: 20 Park Avenue II, Hsinchu Science Park, Hsinchu 300, Taiwan

Tel.: +886-3-666-7799

Fax: +886 - 3 - 666 - 7711

Website: www.wnc.com.tw

E-mail: public@wnc.com.tw

A Message from the Chief Sustainability Officer

WNC deeply understands the importance of having a risk-aware mindset and to this end we introduced a TCFD framework in 2021. By assessing and managing climate-related risks and opportunities, we have developed management measures that align with future strategic planning. We published our first TCFD report in 2023. This year's TCFD report has been verified by SGS, helping to ensure that our climate scenario analysis and financial impact assessment can help the company establish more appropriate climate risk assessment and response measures. We also aim to more comprehensively address the needs and concerns of stakeholders regarding climate-related information, and to encourage our value chain partners to join us in reducing carbon emissions. By doing so, we expand our influence and enhance our corporate competitiveness.

Collaborating with value chain partners to create a low-carbon ecosystem

WNC has signed up for the Science Based Targets initiative (SBTi), committing to set targets for GHG emission reductions across the entire Group based on the SBTi methodology. Using 2022 as a base year, we aim to reduce Scope 1 and Scope 2 GHG emissions by 42% by 2030 and achieve net-zero emissions by 2050. This commitment is a concrete response to the SBTi's urgent call for climate action. To achieve these goals, we have expanded the scope of our Scope 3 inventory and accelerated the GHG inventory process. By January 2024, we had completed a GHG inventory for all global sites and now are gradually completing the verification process. At the same time, we are promoting climate change adaptation projects. These include obtaining green building certifications, developing our product carbon footprint inventory capabilities, setting quantitative indicators for green products, and establishing supply chain carbon management mechanisms to assist our customers in creating low-carbon supply chains.

Implementing energy transformation

We have also become a member of RE100, pledging to achieve 100% renewable electricity usage across all our sites by 2040. We are the first network communications company in Taiwan to join the initiative. To gradually increase the amount of renewables we are using, each year we are implementing energy-saving projects within our facilities, introducing energy management platforms, expanding solar power installations, establishing energy performance indicators and targets, and formulating renewable energy procurement strategies. In the future, our strategy will revolve around power generation for self-use, purchase of Renewable Energy Certificates (RECs) or signing of Power Purchase Agreements (PPAs) with electricity suppliers. In 2023, our renewable energy usage exceeded our original target, reaching 16.02%. We hope to inspire greater participation across the upstream and downstream value chains, working with industry partners to achieve an energy transformation vision.

Aligning with international trends, striving for excellence

To stay abreast of international trends, boost climate governance knowledge, and improve the quality of information disclosure on climate-related issues, we participate in CDP and other international assessments. In 2023, our CDP Climate Change Questionnaire and Water Security Questionnaire both received management-level ratings. In 2023, our CDP Climate Change Questionnaire and Water Security Questionnaire both received management-level ratings. In the future, we will continue to implement climate actions, striving for corporate excellence while ensuring environmental sustainability. We are committed to providing environmentally-friendly, innovative communications solutions, creating better connections for all people and caring for all living beings.



Chief Sustainability Officer

Molly Lin

林夢如

01

Climate Governance

Board of Directors Governance Structure
Management Level Responsibilities



1.1 Board of Directors Governance Structure

To address the operational impacts of climate change and continuously monitor the risks and opportunities arising from climate-related issues, WNC adopted the TCFD (Task Force on Climate-related Financial Disclosures) framework in 2021. We adjusted the organizational structure for climate-related governance, established a governance framework for sustainability issues at the senior management level, and clearly defined the responsibilities of each senior management role. In 2022, WNC established a Sustainable Development Steering Committee and a Sustainable Development Committee to lead the company in aligning with international standards. The committees integrate internal and external resources and strengthen the development of sustainability-related affairs, achieving consistent top-down management. By coordinating cross-departmental collaboration of expertise and resources, we further implemented a communication and collaboration platform for sustainable development strategies. In May of the same year, we established the position of Chief Sustainability Officer, held by the highest-ranking employee of the Sustainability and Marketing Division, to build a comprehensive sustainability governance framework.

Organization	Chair	Communication Frequency	Governance Role	Oversight of Climate-related Risks and Opportunities
Board of Directors	Chairperson	Quarterly	The highest climate governance unit, responsible for overseeing the implementation of climate-related policies and providing strategic guidance to the executive team.	Responsible for reviewing major investment plans, business decisions, and annual targets and budgets related to climate and water security issues. They also incorporate climate-related risks and opportunities into decision-making processes, overseeing and guiding the company's performance on sustainability issues.
Sustainable Development Steering Committee	Chairperson	Once a year	The committee is composed of the President & CEO as well as top-tier managers from all units, responsible for instructing and making decisions on issues related to the company's sustainable development.	Every January, the Chief Sustainability Officer reports and reviews the management results of sustainability-related issues from the previous year and confirms the annual and mid-to-long-term management policies and performance targets. Based on stakeholder communication outcomes and customer requirements, members of the Steering Committee provide suggestions and guidance for ESG project implementation.
Sustainable Development Committee	Chief Sustainability Officer	Quarterly	The committee is composed of top-tier managers from all units, responsible for reviewing climate-related regulations and aligning internal and external initiatives and resources to strengthen overall operational mechanisms.	Quarterly meetings are held to review climate-related regulations and customer requirements in key areas such as GHG emissions, carbon management, energy management, and renewable energy usage. These meetings also track the progress of ESG projects and provide suggestions for the implementation of new measures.

Key Climate-Related Management and Reporting Items for 2023

- Became a member of RE100 and achieved 10% renewable energy usage target in 2023
- Signed the SBTi commitment letter, pledging to achieve a 42% reduction in Scope 1 and Scope 2 emissions by 2030 (base year: 2022) and reach net-zero by 2050
- Developed a low-carbon transition strategy blueprint focusing on international sustainability regulations and trends, and planned short-, medium-, and long-term low-carbon transition strategies, striving towards becoming a net-zero company
- Established a renewable energy procurement strategy to achieve WNC's goal of 50% renewables usage by 2030
- Conducted a GHG Inventory across all sites and reported on related verification plans
- Reported on the progress of key environmental projects

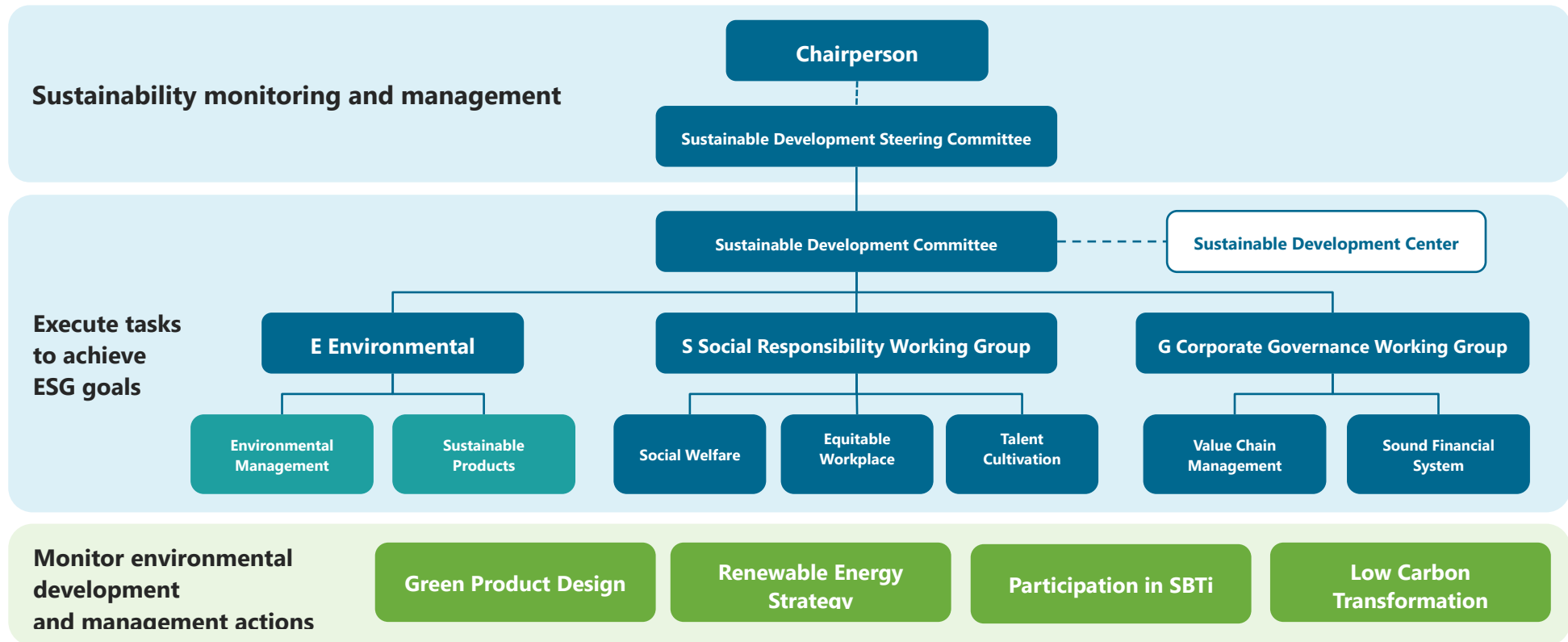
1.1.1 Board of Directors' Training Courses

To ensure that our directors are well-versed in the latest trends in corporate governance and to boost the board's sustainable governance capabilities, all directors of WNC are required to complete annual training on ESG related issues in accordance with the Directions for the Implementation of Continuing Education for Directors and Supervisors of TWSE Listed and TPEX Listed Companies. WNC arranges training programs for the Board of Directors by supplying economic, environmental, and social issues-related publications or planning external courses. These initiatives help directors stay informed about the latest trends and best practices to enhance their skills. The knowledge gained is applied to decision-making and governance processes, ensuring effective responses to the risks and challenges posed by climate change. This approach not only enhances the effectiveness and continuity of our sustainability strategies but also promotes long-term value growth. It underscores our commitment to accountability to shareholders, employees, society, and the environment. These training programs cover areas such as corporate governance, environmental sustainability, climate change, and risk management. The total training hours for WNC directors in 2023 amounted to 87, with over 80% of these hours dedicated to sustainability-related education and training. On average, each director spent 7.7 hours on sustainability courses.

Date	Organizer	Course Name	Course Hours	Participants
04/13/2023	Taiwan Institute of Directors	KPMG Taiwan 2023 Business Leader Academy Forum---In what way can business leverage ESG to reduce risks and seize the opportunities	3	Independent directors
06/02/2023	The ROC National Association of Industry and Commerce	Training for Company Directors and Supervisors - 2023 Taiwan New Net Zero Power Summit	3	Representative
07/04/2023	Taiwan Stock Exchange	2023 Cathay Pacific Sustainable Finance and Climate Change Summit	6	Representatives, directors
09/01/2023	Taiwan Corporate Governance Association	Business Reputation Risk Management	3	Directors
09/22/2023	Taiwan Corporate Governance Association	Key Factors for Board Effectiveness	3	Representatives, independent directors, directors, legal representative directors
09/22/2023	Taiwan Corporate Governance Association	Winning Towards the Future: Global Key ESG Trends and Case Studies	3	Representatives, independent directors, directors, legal representative directors

1.2 Management Level Responsibilities

The Sustainable Development Committee serves as a cross-departmental collaboration platform for sustainability issues within the company. Chaired by the Chief Sustainability Officer, it appoints the Sustainability Development Center as the coordinating unit and establishes three working groups: Environmental Protection, Social Responsibility, and Corporate Governance. Each group comprises department heads to drive the company's sustainable development efforts and achieve sustainable business practices. Quarterly meetings are held to execute the following: 1. Develop goals based on corporate sustainability directions and strategies, formulate related management policies, and outline specific implementation plans. 2. Monitor, review, and revise the execution and effectiveness of corporate sustainability developments. 3. Handle other matters as decided by the Board of Directors through the committee. Furthermore, to enhance WNC's climate risk management capabilities and ensure the implementation of climate management actions, the Sustainability Development Center coordinates with colleagues from the Environmental Protection Working Group to plan the TCFD (Task Force on Climate-related Financial Disclosures) Working Group. They regularly conduct workshops and, based on climate conditions, environmental changes, and market dynamics, identify and assess climate-related risks and opportunities across different operational aspects. This includes evaluating potential financial impacts and formulating management policies and carbon management initiatives for significant climate issues, thereby strengthening our ability to react and adapt to climate change.



02

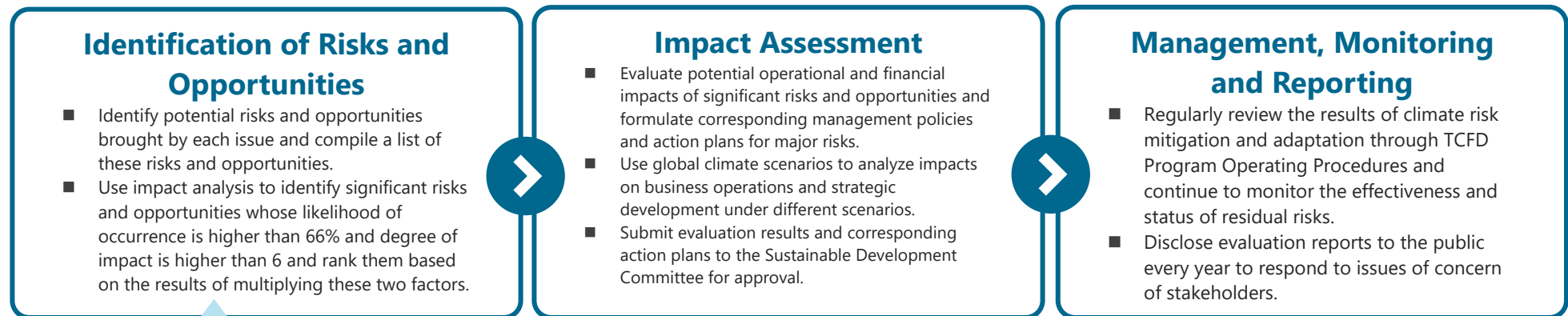
Climate Strategy

Identification of Climate-related Risks and Opportunities
Climate Scenario Analysis



2.1 Identification of Climate-related Risks and Opportunities

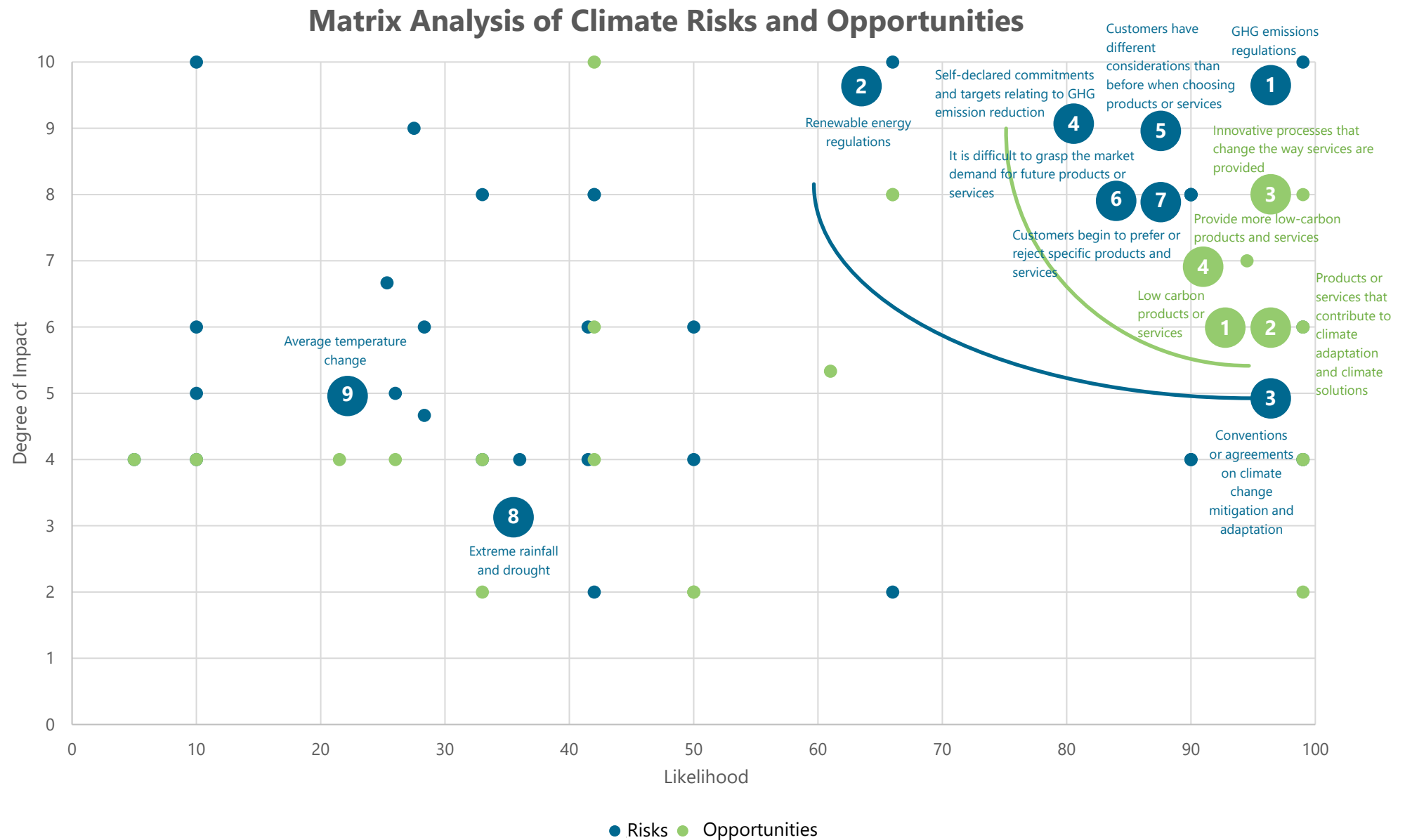
The TCFD Working Group collects information on climate-related issues in domestic and overseas industries and the latest global trends. After selecting and consolidating these issues, the group compiles a list of climate-related risks and opportunities. The group also collects data and information from our production sites and offices around the globe to identify climate-related risks and opportunities. The working group consists of personnel from Facility Affairs, Industrial Safety, General Affairs, Finance, DMIS, Market & Business Analysis, products, QA, Global Supply Chain Management, and sustainability units. A total of 55 climate-related risks and opportunities centering on resource management, products and technology, business and market, supply chain management, and assets and administration were identified. Furthermore, the working group also evaluated the likelihood and impact of these risks and opportunities and prioritized them based on a risk-opportunity matrix and the double materiality concept. Through this process, seven transition risks, two physical risks and four opportunities were identified. The time of occurrence of these risks and opportunities is assessed and the process involves dividing them into short term (1–2 years), medium term (2–5 years) and long term (5–10 years) phases, while considering eight major categories of risk and the scope of the upstream, midstream, and downstream value chain. It entails estimating potential financial impacts and formulating corresponding short, medium, and long-term management measures, thereby enhancing our climate resilience and achieving sustainable development goals.



Classification of Materiality

	Description	Classification Methods
Degree of Impact	Potential impact of issues or events on finances, products and services, personnel injury, regulations, and goodwill.	Five degrees: High (10), Medium High (8), Medium (6), Medium Low (4), Low (2)
Likelihood	Likelihood of occurrence of the issues or events.	Seven degrees: Surely (> 99%), Very Likely (> 90%), Likely (> 66%), A Certain Degree of Likelihood (> 50%), Possibly (33-50%), Unlikely (< 33%), Very Unlikely (< 5%)

Matrix Analysis of Climate Risks and Opportunities



Risks

Category	Risks	Potential Financial Impact	Sites under Influence	Value Chain Component under Influence	Duration
Transition Risks - Regulations	R1 Regulations formulated in accordance with GHG emissions	Expanding the scope of greenhouse gas inventories leads to increased operating costs	HQ and all sites	WNC's business operations	Short-term
	R2 Renewable energy regulations	Installation and maintenance requirements of solar panels lead to direct cost increases	HQ and all sites	WNC's business operations and upstream supply chain vendors	Long-term
	R3 Conventions or agreements on climate change mitigation and adaptation	Complying with international net-zero goals results in increased expenditure on carbon reduction implementation	HQ and all sites	WNC's business operations	Long-term
	R4 Self-declared commitments and targets relating to GHG emission reduction		HQ and all sites	WNC's business operations	Short-term
Transition Risks - Market	R5 Customers have different considerations than before when choosing products or services		HQ and all sites	WNC's business operations and downstream customers	Short-term
	R6 It is difficult to grasp the market demand for future products or services	Decreased product orders and additional communication costs with clients lead to increased costs	HQ and all sites	WNC's business operations and downstream customers	Short-term
Transition Risks - Company Reputation	R7 Customers begin to prefer or reject specific products and services		HQ and all sites	WNC's business operations	Short-term
Physical Risk - Immediate Risks	R8 Extreme rainfall and drought	Extreme rainfall can lead to flooding, resulting in damage to production sites, employees being unable to work, and interruptions in the supply chain. Droughts may also affect water usage in manufacturing processes.	All sites	WNC's business operations and upstream supply chain vendors	Short-term
Physical Risk - Long-term Risks	R9 Average temperature changes	Prolonged high temperatures may lead to increased electricity demand and higher water usage for cooling towers.	All sites	WNC's business operations and upstream supply chain vendors	Long-term

Note: Through a dual assessment of likelihood of occurrence and degree of impact, there are currently no significant physical risks associated with WNC's owned or leased premises. However, considering the uncertainty of climate disasters, the most frequently occurring rainfall disasters in Taiwan and global concerns about water resources are also included in significant issue management.

Opportunities

Category	Opportunities	Potential Financial Impact	Sites under Influence	Value Chain Component under Influence	Duration
Products and Services	O1 Low carbon products or services	■ Launching low-carbon products leads to increased revenue ■ Expanding the application scope of network communication products brings new business opportunities ■ Developing low-energy technologies or systems can help reduce production costs	HQ and all sites	WNC's business operations and downstream customers	Short-term
Adaptation and Solutions	O2 Products or services that contribute to climate adaptation and climate solutions		HQ and all sites	WNC's business operations and downstream customers	Short-term
R&D Innovation	O3 Innovative processes that change the way services are provided		HQ and all sites	WNC's business operations and downstream customers	Short-term
Operations Diversification	O4 Provide more low-carbon products and services		HQ and all sites	WNC's business operations	Short-term

2.2 Climate Scenario Analysis

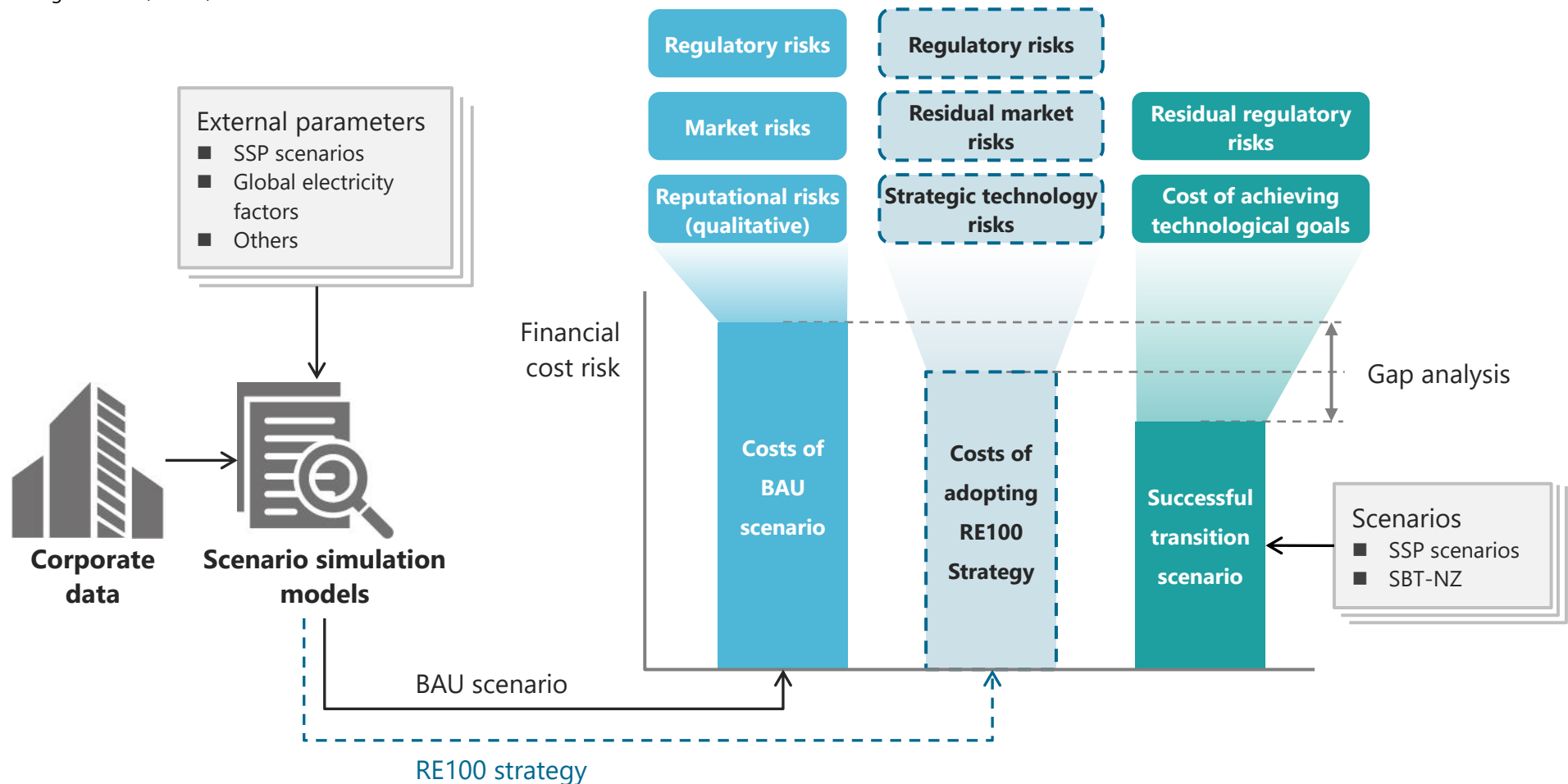
2.2.1 Scenario Description

In accordance with TCFD recommendations, WNC uses a set of well-developed global climate scenarios as a tool for simulating future development. The company explores these scenarios to understand the impact these climate scenarios may bring to the company and apply the analysis results to different management objectives. WNC conducts cost estimations and cost variance analysis for different strategies the Company may adopt in the face of climate change and identifies potential financial impact the Company may face when these scenarios occur. With regard to transition risks, we use three external scenarios, which are Nationally Determined Contributions (NDCs), SSP1-1.9 pathway specified in the Sixth Assessment Report (AR6) of Intergovernmental Panel on Climate Change (IPCC), and the most stringent SBT-NZ pathway, to estimate potential financial impact under the scenario of a BAU strategy (Business as Usual strategy, i.e., WNC does not take any climate-related actions) and an RE100 strategy (i.e., WNC adopts renewable energy strategies to achieve 50% reduction by 2030 and 100% reduction by 2040). As for physical risks, WNC converts relevant information to measurable data and establishes an integrated assessment model with this data while using the SSPs specified in IPCC AR6 to simulate possible future climate trends.

Risk Type	Climate Scenario	Description	Scope of Evaluation	Factors Included
Transition Risks	NDCs	The assumption of the net-zero pathway proposed by Taiwan government: Emissions will be reduced by 10% by 2025 and 20% by 2030 and net zero will be achieved by 2050.	Scope 1 and 2	Carbon tax, carbon penalties, electricity carbon emission factor, renewable energy costs, carbon removal costs
	SSP1-1.9	The lowest GHG emissions scenario used in the IPCC AR6, with the core concept being that the world is able to effectively reduce GHG emissions and achieve sustainability goals. It is estimated that the net-zero goal will be		
	SBT-NZ	In SBT's pathway to achieving net zero, it is assumed that emissions will reduce 42% by 2030, then 2.4% annually from 2031 to 2050, with only 10% of emissions remaining.		
Physical Risks	SSP1-2.6	Low GHG emissions assumption where net zero is achieved by 2075.	All sites	Inundation potential, debris flow potential, landslide potential, water stress, and drought
	SSP2-4.5	Intermediate GHG emissions assumption where CO ₂ emissions remain at current levels until 2050, then falling but not reaching net zero by 2100		
	SSP3-7.0	High GHG emissions assumption where CO ₂ emissions double by 2100		
	SSP5-8.5	Very high GHG emissions assumption where CO ₂ emissions triple by 2050		

2.2.2 Scenario Analysis of Transition Risks

According to the assessment results of WNC's significant climate-related transition risks, transition risks relating to regulations and markets are predominant. To further explore the long-term effect these two aspects may have on the Company, WNC has chosen two issues most related to its sustainable development strategies, which are the imposition of carbon taxes and carbon fees as well as changes in customers' product demand. By incorporating data from our sites and international databases into NDCs, SSP1-1.9 and SBT-NZ pathways, we have conducted future impact assessments. Since our different sites around the globe have different climate conditions, regulations and resources, the analysis was focused on key sites including in Taiwan, China, and Vietnam.



Scenario Analysis Chart of Transition Risks

Regulations: The imposition of carbon taxes/carbon fees leads to increase in operational costs

Scenario assumption

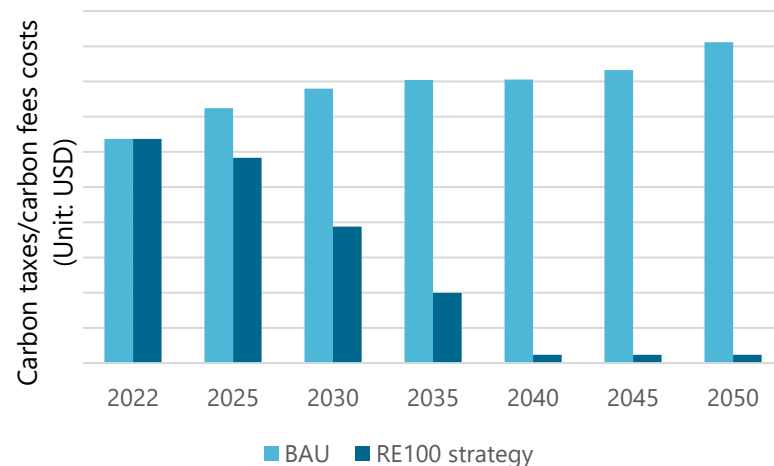
- Scope 1 emissions remain unchanged in the future
- Electricity usage grows by 5% every year
- Revenue grows in accordance with the GDP growth specified in SSP2-4.5
- RE100 goals that every site needs to achieve every year



Financial impact

Scenario One: NDCs

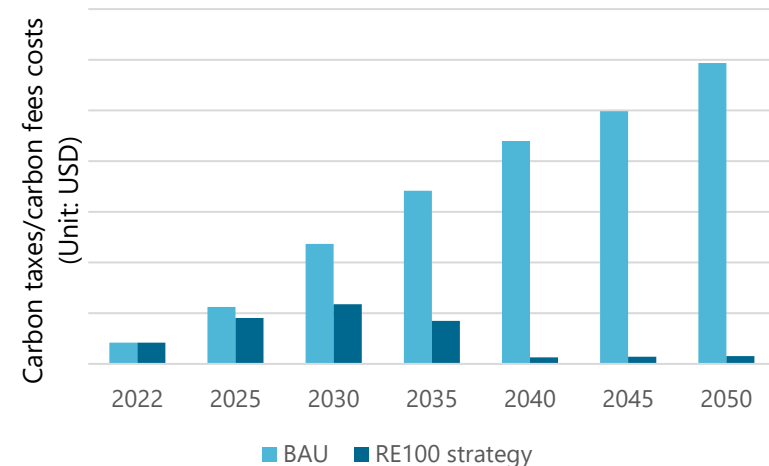
Assuming that the carbon tax cost approximates US\$10 per ton around the globe. If WNC does not take any actions, the estimated financial impact will be close to USD800,000 by 2030 and exceed USD900,000 by 2050. If WNC adopts its existing RE100 strategy, the financial impact will be less than USD30,000 after 2040 (mainly from the carbon tax levied on Scope 1 emissions) since WNC has committed to achieve its RE100 goal by 2040. In a nutshell, the financial impact is the highest when WNC does not take any action while lowest when WNC adopts its current RE100 strategy.



Difference in operational costs when adopting BAU and RE100 strategies

Scenario Two: SBT-NZ

When using the highest carbon fee scenario in SSP1-1.9, carbon fees will reach USD60 million in 2050 if WNC does not take any action. If the RE100 strategy is adopted, the financial impact will be minimized, around USD1 million.



Difference in operational costs when adopting BAU and RE100 strategies

Market: Changes in customers' product demand

Scenario assumption

- Use GDP growth in SSP2-4.5 for revenue estimation
- All products are influenced by low-carbon transition
- Percentage of customers requiring low-carbon products under different scenarios



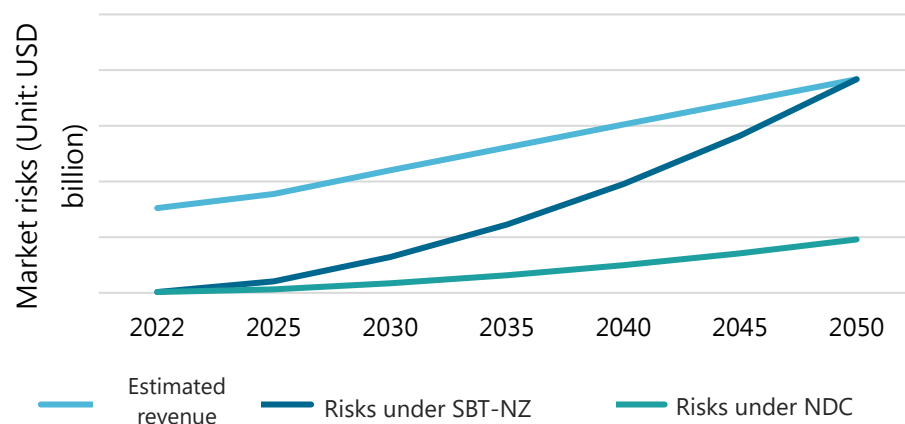
Financial impact

BAU

WNC adopts SSP2-4.5 for revenue growth estimation, in which revenue will grow to more than USD7.5 billion in 2050. Considering that customer low-carbon demand will grow with time from 1% to 100% by 2050 under the SBT-NZ scenario, it is expected that market risks will increase every year. Under the NDCs, customer demand for low-carbon products will increase to 25% at maximum. Thus, the market risk under this scenario is lower than that under SBT-NZ.

RE100 strategy

Since requirements of NDCs have been met, no residual market risks exist. In comparison, under the SBT-NZ scenario, the net-zero goal is not achieved by 2030, and around USD50 million of market risk still exists. However, WNC expects to comply with SBT-NZ requirements from 2031 and thus, no residual risks exist.



Gap between revenues under different scenarios when adopting the BAU strategy



Overview of financial impact under different transition scenarios

In terms of regulations, WNC has conducted a comparison of financial impacts caused by BAU and RE100 strategies under each scenario according to scenario simulations. A BAU strategy will lead to more than 0.5% financial impact on our business operations and as time goes by regulatory requirements and tax costs will grow higher. However, if the RE100 strategy is implemented, the financial impact in 2030 can be reduced by 50% compared to the BAU strategy and the management costs for achieving RE100 strategy will account for less than 0.5% of WNC's revenue.

With regard to market risks, if WNC does not take appropriate actions to respond to climate change, it will face around 7.86% to 29.31% in revenue losses in 2030. However, if WNC implements its current RE100 strategy, the revenue loss in 2030 can be reduced to 1.29%. In addition, with the increase in renewal energy usage, no financial impact will occur after 2032.

Aspect	Strategy	External Transition Scenario	Financial Impact in 2030	Financial Impact in 2050
Regulations	BAU	NDCs	< 0.02%	< 0.01%
		SSP1-1.9	< 0.54%	< 0.77%
		SBT-NZ	< 0.54%	< 0.77%
	RE100 strategy	NDCs	< 0.01%	< 0.0003%
		SSP1-1.9	< 0.27%	< 0.02%
		SBT-NZ	< 0.27%	< 0.02%
Market	BAU	NDCs	7.86% revenue loss	25% revenue loss
		SSP1-1.9	29.31% revenue loss	100% revenue loss
		SBT-NZ	29.31% revenue loss	100% revenue loss
	RE100 strategy	NDCs	No financial impact	No financial impact
		SSP1-1.9	1.29% revenue loss	No financial impact
		SBT-NZ	1.29% revenue loss	No financial impact

Note: Financial impact is presented as a proportion of revenue.

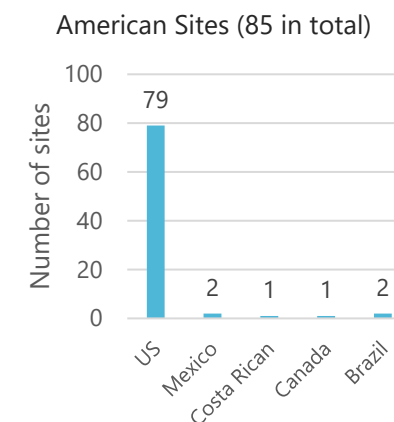
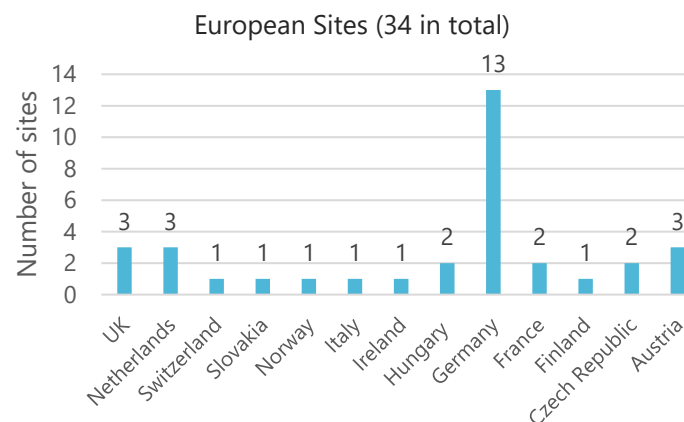
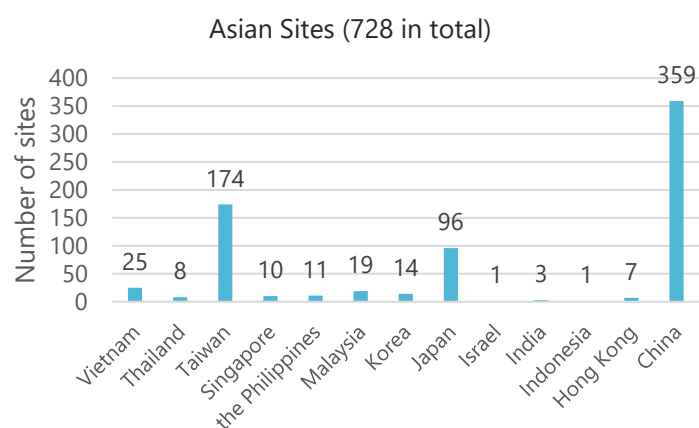
2.2.3 Scenario Analysis of Physical Risks

Global warming has led to an extremely uneven distribution of annual precipitation around the world and increased occurrence of rainfall and floods. WNC utilizes international database and assessment tools to conduct preliminary analysis concerning the risk level of water resources and potential future trends at our sites and the locations of our key suppliers. The information then serves as the basis of physical risk analysis, helping the Company identify impact on assets and business operations under different climate change scenarios. In addition, according to data from Taiwan's Central Weather Administration, the mean annual precipitation in Taiwan has not shown significant change over the past 100 years. However, the difference in precipitation between dry and wet years has become more evident, which means the annual rainfall in dry years is on a downward trend and an upward trend in wet years. From 1960 to 2017, the frequency of dry years has increased noticeably compared to the preceding half-century and in 2021, southern Taiwan was faced with the worst drought in nearly a century. As a result, WNC has conducted analyses of risk levels at its sites and at key suppliers' locations when extreme rainfall and droughts occur under different climate scenarios. In the following sections, risk issues such as global water resources and extreme rainfall and droughts in Taiwan are discussed individually.

Analysis of Global Water Resource Risks

The difficulty in obtaining meteorological and hydrological information varies a lot across different regions and the detailedness and transparency of this data also differs significantly. Therefore, WNC adopts the Aqueduct Water Risk Atlas developed by the World Resources Institute (WRI) to conduct preliminary analysis of the overall water resource stress at 847 locations, including WNC's own sites and the sites of key suppliers. This analysis also serves as a basis for identifying physical risks. The overall water resource risks of usable water resources in different regions may rise due to a wide range of factors. Therefore, 13 indicators are included in our analysis: (1) baseline water stress, (2) baseline water depletion, (3) interannual variability, (4) seasonal variability, (5) groundwater table decline, (6) riverine flood risk, (7) coastal flood risk, (8) drought risk, (9) untreated connected wastewater, (10) coastal eutrophication potential, (11) unimproved/no drinking water, (12) unimproved/no sanitation, and (13) the Peak RepRisk country ESG risk index. Among these indicators, baseline water stress is a significant one, which measures the ratio of total water demand to available renewable surface and groundwater supplies. Higher values indicate more competition among users and higher stress. WNC uses three periods of time (2022, 2030, and 2040) and three scenarios (SSP2-4.5, SSP2-8.5, and SSP3-8.5) to estimate the baseline water stress under nine possible scenarios.

WNC Global Sites and Key Supplier Sites



According to our analysis results, locations with baseline water stress are mainly in China, Taiwan, and the US, mostly areas with dry climates or dense populations. When looking at the overall baseline water risk through the 13 indicators, we found that locations with water stress still concentrate in China, Taiwan and the US. Among these locations, developed countries have lower risks due to comprehensive water resource management while island nations have extremely high water risks. In addition, we also take into consideration the three periods of time and three scenarios to evaluate water stress changes compared to 2020. A higher value means a higher water resource risk. In general, the most drastic changes can be observed in dry areas and island nations.

Item	Level	Distribution
Baseline water stress	High	Central China and Vietnam
	Extremely	Northern China, Mainland Southeast Asia, Central
Overall water resource risks	High	Central China and Vietnam
	Extremely	Northern China and Mainland Southeast Asia



Overall baseline water stress



Overall baseline water resource risks

Data source: Aqueduct Water Risk Atlas of World Resources Institute (wri.org)

Extreme Rainfall Risk Analysis

According to the IPCC, in the context of climate change impact, risk results from dynamic interactions between climate-related hazards with the exposure and vulnerability of the affected human or ecological system to the hazards. Hazard refers to the potential occurrence of climate-related physical events, trends or impacts that may cause damage and losses. Vulnerability is the propensity or predisposition to be adversely affected and exposure is defined as the nature and degree to which a system is exposed to significant climatic variations. We have examined the physical risk to WNC's sites in Taiwan and WNC's key suppliers from the aspects of hazards, vulnerability and exposure. After quantifying the data, risk levels for each site were identified, which will serve as an important reference when formulating operational strategies and making adjustments in the future.

Risk Aspect	Factor	Assumed parameters / usage scenario / legal source	Data source
Hazard	Extreme rainfall	Four scenarios (SSP1-2.6, SSP2-4.5, SSP3-7.0, SSP5-8.5) in four time periods (2021–2040, 2041–2060, 2061–2080, 2081–2100) were used for a total of 16 data sources. Five hazard levels were laid out in accordance with rainfall intensity.	Taiwan Climate Change Projection and Information Platform (TCCIP)
Vulnerability	Flooding potential (flooding potential map)	According to the regulations of local county governments in Taiwan, an inhabited residence is considered flooded if the water level from a flood reaches 50 cm or above. In scenarios where the cumulative rainfall is between 150 to 650 mm over a period of six to 24 hours, a flood depth exceeding three meters is classified as the most severe disaster level.	Taiwan flooding potential map provided by the Agency of Rural Development and Soil and Water Conservation
	Debris flow potential (river areas with debris flow potential + impacted areas)	Using data from 2023, there are a total of 1,731 rivers with debris flow potential throughout Taiwan.	Data on river areas with debris flow potential provided by the Agency of Rural Development and Soil and Water Conservation
	Landslide potential (geological locations with landslide/mudslide potential)	Areas with landslide or mudslide potential are areas surrounding the following locations that have/will be impacted by landslides/mudslides: Geological locations prone to landslides/mudslides, locations where landslides have occurred, or locations where conditions for landslides/mudslides exist.	Central Geological Survey
Exposure	Site location	Geographic coordinates of WNC sites in Taiwan and key suppliers	WNC

For the hazard aspect, extreme rainfall was used as the hazard factor. The impact level to WNC sites from 16 data points (four scenarios in four time periods) were considered, and five hazard levels were laid out in accordance with rainfall intensity. For vulnerability, as the terrain, drainage situation and geology at the location of each WNC site are different, three hazard factors were used to determine the risk level: flooding potential, debris flow potential and landslide potential. For exposure, the geographic coordinates of 174 sites were provided. After analysis, risk levels were identified for each of the risk aspects for each WNC site. After referencing a risk matrix, the highest risk level out of each of the risk aspects will be used to represent the overall risk level for a site. There are four types of overall risk level: no risk, low-risk, medium-risk and high-risk.

Our evaluations showed that no WNC sites are located in areas with flooding, debris flow or landslide potential, thus their overall risk level is no risk. For WNC's key suppliers, 49 of them are in flooding potential areas. 16 of these suppliers have a medium-risk level and 33 have a low-risk level. No suppliers have a high-risk level.

Drought Risk Analysis

The drought risk for each WNC site and each of WNC's key suppliers differ. The Taipei City, New Taipei City, Hsinchu and Taichung areas have stable water resources, while the Miaoli and Tainan areas occasionally encounter water shortages. Compared to other areas in Taiwan, the Taoyuan, Chiayi and Kaohsiung areas are more likely to encounter water shortages, and these areas all have a higher water shortage risk in the SSP2-4.5, SSP3-7.0 and SSP5-8.5 scenarios, thus they are priority areas for water management.

Water Resource Status	Region	Number of Sites	Source of Water	No. of Water Shortages (defined as when the reservoir level	Water Shortage Risk Level in Different Scenarios			
					SSP1-2.6	SSP2-4.5	SSP3-7.0	SSP5-8.5
	Taipei City and New Taipei City	WNC sites: 1 Key Suppliers: 66	Feicui Reservoir	0	Stable	Concern	Concern	Concern
	Taoyuan	Key Suppliers: 38	Shimen Reservoir	51	Concern	Priority Concern	Priority Concern	Priority Concern
	Hsinchu	WNC sites: 2 Key Suppliers: 37	Baoshan Reservoir and Baoshan No. 2 Reservoir	11	Stable	Concern	Concern	Concern
	Miaoli	Key Suppliers: 1	Mingde Reservoir	24	Stable	Concern	Concern	Concern
	Taichung	Key Suppliers: 8	Liyutan Reservoir	8	Stable	Concern	Concern	Concern
	Chiayi	Key Suppliers: 1	Renyitan Reservoir	75	Concern	Concern	Priority Concern	Priority Concern
	Tainan	WNC sites: 1 Key Suppliers: 6	Zengwen Reservoir, Wushantou Reservoir	38	Stable	Concern	Concern	Concern
	Kaohsiung	Critical Suppliers: 13	Nanhua Reservoir, Gaoping River Weir	57	Concern	Concern	Priority Concern	Concern

03

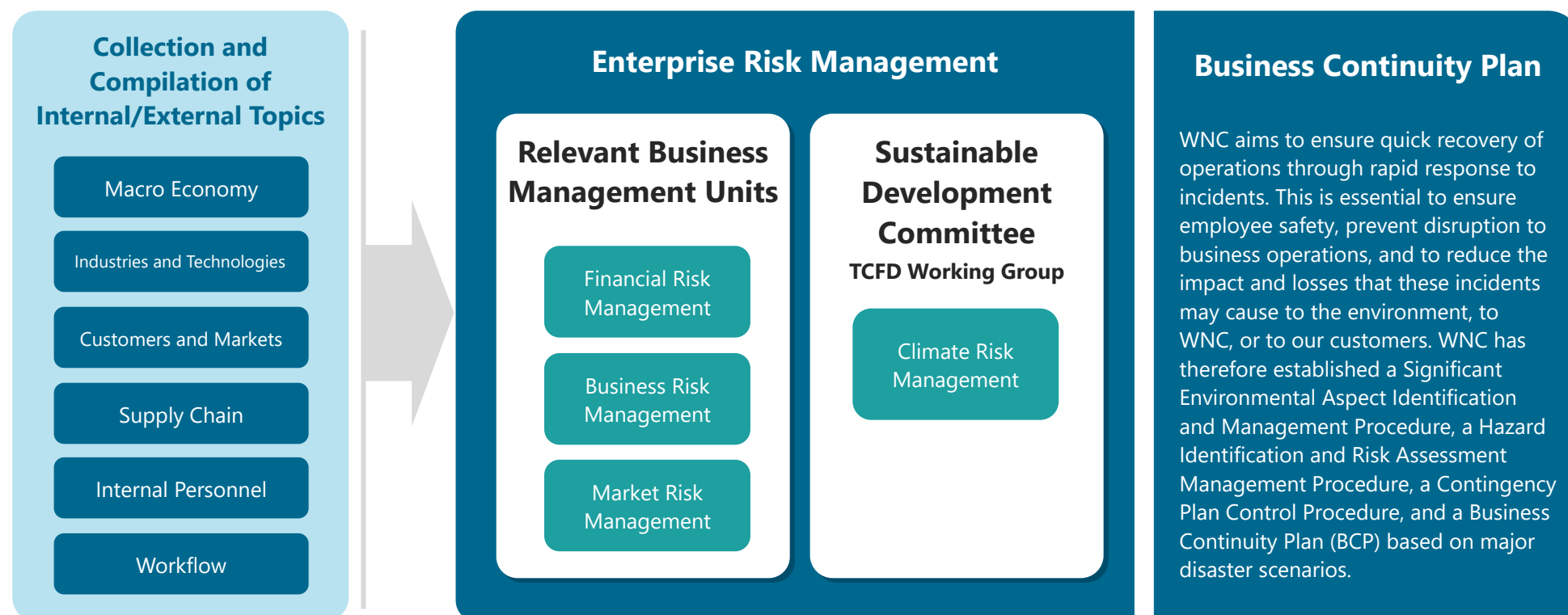
Risk Management

Risk Management Framework
Adaptation and Mitigation



3.1 Risk Management Framework

WNC controls risk related to business operations through its existing administrative organization and internal control mechanisms. Managers from each unit meet regularly to review potential internal and external operations-related variables and conduct risk assessment on these variables to analyze the threats and opportunities they present. These variables include the overall economy, industry and technology, customers and markets, supply chains and internal personnel, and issues related to operating procedures. Furthermore, after careful evaluation of all aspects, if the risk item poses potentially significant threats to WNC's operations, it will be designated as a material risk, and management strategies and response measures to avoid, reduce or transfer risk will be formulated. In addition to implementing risk control measures proposed by different functional unit managers and department heads, we also continually strengthen our climate-related internal risk control mechanisms and emergency response and recovery capabilities. Recently, climate-related topics material topics have been listed as material topics requiring attention based on the regular reviews and evaluation results of the company's material topics. Therefore, every year the TCFD Working Group conducts climate-related evaluations and develops adaptation and mitigation strategies. These strategies are reported to the Sustainable Development Committee, and progress on the implementation of plans relating to these strategies is regularly tracked.



3.2 Mitigation and Adaptation

"Become a trustworthy communications solutions partner creating positive connections and interactions between the environment and humankind" is our sustainability vision, and we will follow this vision to instill sustainability concepts into daily decision-making processes and participate in international climate-related initiatives to become a green business. The four aspects of our environmental protection strategy are: green product design, renewable energy strategies, Science Based Targets initiative (SBTi), and promotion of low carbon transformation. We will use the assessment results for climate-related risks and opportunities to continue developing our environmental protection strategy and work with partners in the value chain to establish a green supply chain.

Strategy	Long-term Target	Corresponding Material Risks/Opportunities	Response Measures	Management Cost ^{Note}
Green Product Design	WNC is dedicated to sustainable product development, aiming to minimize any potential negative environmental impact at every stage of the product life cycle. Our goal is to provide customers with non-toxic, low-pollution, recyclable, and energy-efficient product design and manufacturing services.	R5 R6 R7 O1 O2 O3 O4	■ Low-carbon Technological Innovation Aligning with the global trend of low-carbon and net-zero emissions, we explore potential applications for wireless communications technologies (e.g., products relating to Mobility as a Service). At the technological development level, we continue to allocate research and development resources to product technologies, implement green design concepts, and develop low-energy technologies and systems to enhance the competitiveness of said products. ■ Sustainable Products: We integrate eco-design and incorporate green management principles into supplier management mechanisms. In addition, we implement source management for manufacturing processes, green product design and hazardous substances of suppliers. ■ Relevant Regulations and Trends Monitoring: Based on international trends and related regulations, customer environmental goals and practices, customer requirements for overall suppliers and WNC, and information on practices of industry benchmark enterprises, we formulate or adjust WNC's strategies and practices.	■ Industry market research reports and human resources investment amounts to approximately NT\$6 million annually. ■ For green product design, we are driving a carbon footprint project, with an investment of approximately NT\$1.38 million in 2023. ■ Total investment in environmental research and development is approximately NT\$10 million.

Renewable Energy Strategy	Introduce an energy management system, implement internal energy management policies in accordance with international standards, and propose energy-saving improvement plans to reach the goal of 100% renewable energy usage.	R2	■ Energy management: Introduce the ISO 50001 energy management system and continue to promote energy-saving initiatives to enhance equipment energy efficiency. ■ Renewable Energy: Formulate a long-term strategy for renewable energy, and gradually increase the number of solar panels installed in WNC sites to achieve the goal of 100% renewable electricity.	■ Annual expenditure for installation, maintenance, and platform usage fees for renewable energy equipment is approximately NT\$9.16 million.
Participation in SBTi	Participate in international climate initiatives and communicate with stakeholders in the value chain to demonstrate that we put a lot of focus on issues relating to climate change and that we have formulated suitable response measures.	R3 R4	■ Participating in Climate Advocacy Initiatives: Joining international carbon reduction organizations such as SBT and RE100 aligns our corporate sustainability goals with global objectives. ■ Climate-related Information Disclosure: Participating in international rankings and connecting with global resources, we annually publish a Sustainability Report and TCFD Report to disclose climate-related information.	■ Energy-saving investment: Renewable energy purchasing, energy-saving equipment, and related manpower costs, amounted to approximately NT\$24 million in 2023. ■ Participation in initiatives: The annual membership fee for related initiatives is approximately NT\$180,000. ■ Verification support: The execution of ISO management system updates, as well as guidance on SBTi and TCFD, amounted to approximately NT\$2.63 million in 2023.
Low Carbon Transformation	Implement management mechanisms and projects relating to climate change adaptation and environmental protection to improve the company's sustainable competitiveness in the net-zero age.	R1 R8 R9	■ Greenhouse Gas Management: Establish a global inventory of GHG emissions for all WNC sites, stay updated on government policies and implement GHG emissions reduction initiatives. Progress on these initiatives is reviewed quarterly by the Sustainable Development Committee. ■ Water Resource Management: Install monitoring devices to regularly inspect water usage and identify areas for improvement, thereby promoting water-saving and water recycling measures. ■ Waste Management: Apart from recycling metal scrap, WNC has fully implemented recycling and reuse projects. ■ Response and Prevention: Establish a disaster recovery organization and convene emergency meetings to assess the severity of incidents and initiate recovery operations. Simultaneously, plan backup production and material risk diversification measures, and conduct regular internal process drills.	■ The annual expenditure for greenhouse gas verification and counseling, as well as the usage fees for related management systems, is approximately NT\$1.13 million. ■ Response Measures: The annual expenditure for regular risk assessment costs, emergency response equipment, monitoring management platforms, and education and training plans related to business continuity planning is approximately NT\$13.66 million.

Note: Management costs are calculated based on internal company data, with some clearly estimable financial costs listed for calculation. Financial figures in this report are expressed in New Taiwan dollars (NT\$) unless otherwise specified, and an exchange rate of 30.7350 between the US Dollar (USD) and New Taiwan Dollar, 4.3243 between the Chinese Yuan (RMB) and New Taiwan Dollar, and 0.0013 between the Vietnamese Dong and New Taiwan Dollar as of the end of 2023 are used.

3.2.1 Green Products

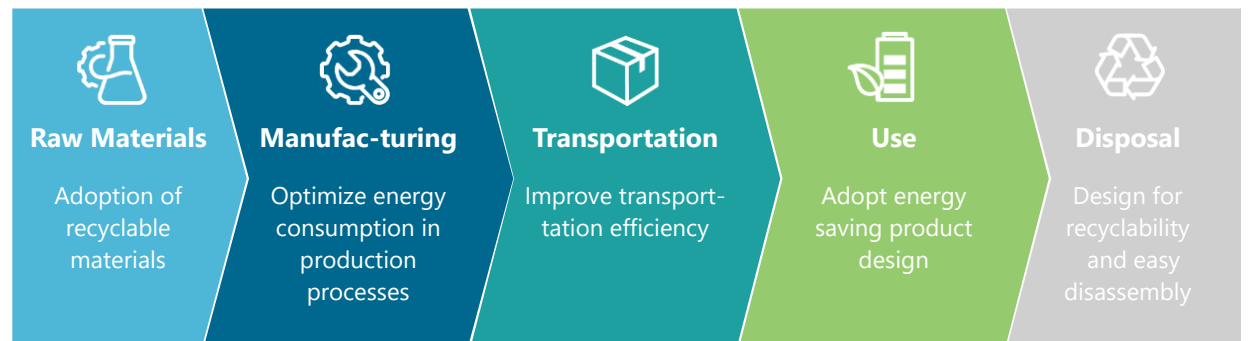
WNC is dedicated to the development of communications technologies and green products. We define green products as those that meet the two major requirements of being safe and having low carbon emissions. In terms of safety, we require our products to be free from environmentally harmful substances, complying with regulations on prohibited and restricted substances management, ensuring they are harmless to human health and the environment.

In terms of carbon reduction, we've implemented Life Cycle Assessment (LCA) to turn sustainability concepts into basic requirements in the early stages of product design. We are committed to reducing carbon emissions throughout the five major stages of the product lifecycle: from raw material procurement, manufacturing, transportation, consumption, to waste disposal and recycling, thereby reducing our impact on climate change. In addition, through adoption of environmentally-friendly materials and packaging, optimizing low-carbon manufacturing processes, developing energy conservation technologies for products, and designing products for easy disassembly and recycling, we aim to reduce the negative environmental impact of products during each stage of their lifecycle and create more environmentally-friendly and sustainable products.

In order to reuse resources and reduce GHG emissions, WNC adopts low-carbon product designs. Through continuous innovation and improvement, we reduce product carbon footprints throughout their life cycle while ensuring compliance with related regulations and standards. We believe that green products can both provide our customers with more sustainable solutions and make a contribution to our society.

Category		Definitions (items meeting one of the following criteria are included)	Estimated carbon reduction
Material manufacturing: Low carbon emissions	Use of low-carbon materials and packaging materials	■ Use of PCR > 50% ■ Reduce total materials used ■ Integrally formed structures to reduce product weight ■ Reduce materials used for shipment packaging	1,426.47 tonnes CO ₂ e
	Optimization of low-carbon processes	■ Use existing molds; reduce development of new molds ■ Reduce energy consumption during manufacturing processes (streamlining and automation) ■ Increase renewable energy use during manufacturing processes	13,344.83 tonnes CO ₂ e
Consumer use: prevent emissions	Energy-efficient design	■ Improve energy efficiency of predecessor products (both software and hardware included) ■ Optimize product's energy saving mode	6,126.23 tonnes CO ₂ e
	Design for easy disassembly and easy recycling	■ Snap-fit design for easy maintenance and recycling ■ Easy disassembly and maintenance, extending product lifecycle	N/A

Note: The amount of carbon emissions cut is estimated based on the variance in emissions between products improved by green design and their predecessors. Since products are used in different regions, the latest electricity carbon emission factors of current year from their respective regions are adopted for this calculation: China sites 0.5568 kgCO₂e/kWh; US sites: 0.3753 kgCO₂e/kWh



3.2.2 Green Supply Chain

To build a green supply chain and respond to international trends and customer needs, WNC actively promotes green products and green production. The Company is also committed to the promotion of green purchasing concepts and actions in the supply chain and the incorporation of green management principles into the supplier management mechanism, to implement source management for manufacturing processes, green product design and hazardous substances of suppliers. Our aim is to create a sustainable supply chain through implementing supplier management policies, providing suppliers with training and asking them to fill out surveys, signing relevant contracts and regulations with suppliers, and regularly conducting RBA audits on suppliers and tracking their improvement progress. In this age of unpredictability and change, we want to work with supply chain partners to enhance each other's operational resilience and establish a collaborative model based on mutual prosperity and benefit.

WNC began asking suppliers to sign a Supplier Quality Agreement in 2006. WNC requires suppliers to follow the Environmentally Hazardous Substances Standard Guidelines formulated by WNC, and submit third party testing reports when necessary. In 2023, 41 new suppliers of raw materials and components signed the Supplier Quality Agreement, accounting for 34.5% of new suppliers in 2023. In the future, we will continue to require all suppliers to sign quality agreement guarantees to ensure that the products designed and manufactured by WNC can meet the requirements of customers and international regulations related to prohibited and restricted substances, and achieve the goal of establishing a green supply chain.

We have a dedicated procurement team for each country/region, responsible for the selection and management of local suppliers. Local procurement can support the development of local economies, generate employment opportunities and income, and reduce costs and carbon emissions of transportation. According to the amount of raw materials, components and production consumables purchased by WNC, suppliers in Taiwan are the main suppliers, accounting for 49% in 2023. Other suppliers are located in Asia, Europe and the United States.

In addition, we also hold an annual Sustainable Supply Chain Conference to share WNC's carbon reduction goals and achievements with suppliers, introduce the WNC Supplier Carbon Management Platform, and advocate WNC's carbon reduction requirements for suppliers. Industry instructors were invited to conduct training sessions on topics such as global carbon reduction trends, carbon inventory taking and carbon footprint. A total of 42 potential high-carbon emissions suppliers attended the 2023 Sustainable Supply Chain Conference to work with WNC in promoting carbon reduction activities across the value chain to aid the value chain in moving towards net zero in response to international trends.

3.2.3 Energy Management

We have implemented an energy management system to improve our energy efficiency by monitoring energy usage, setting energy-saving goals, and implementing energy-saving measures. This not only helps reduce energy consumption and greenhouse gas emissions but also lowers operational costs.

We have also implemented the ISO 50001 energy management system at all sites. Following the ISO 50001 management system framework, we carry out a process of identifying major energy-consuming equipment. We list energy-saving action plans for each site, regularly engaging departments internally for discussions. We establish clear improvement plans for lighting power, ventilation, air conditioning, and air compression systems. Finally, we conduct internal energy management reviews to evaluate the effectiveness of implementation, continuously refining our management procedures and improvement measures for the next fiscal year. Additionally, we conduct annual energy-saving education and internal audit activities at each site. These initiatives aim to continuously educate and update our employees on energy-saving concepts, contributing together to the sustainable development of the company.

WNC's energy-saving measures in the most recent four years ^{Note}

Item	Unit	2020	2021	2022	2023
Energy conserva-tion plans	No. of plans	30	41	54	53
Electricity saved	Gigajoule	3,885	12,698	21,717	8,784
Carbon reduction	tonnes CO ₂ e	555	1,948	3,752	1,310
Amount invested	NT\$10,000	301.64	1,535.06	3,843.92	537.31

Note: The amount of electricity saved is estimated based on the running hours of the equipment as well as the difference in power usage before and after improvements were made to the equipment. The amount of carbon emissions is calculated annually using the latest carbon emission factors. Additionally, different electricity carbon emission factors are adopted for this calculation based on the implementation region of the energy-saving program. 2023 carbon emissions factors: 0.494 kg CO₂e/kWh at Taiwan sites, 0.5568 kgCO₂e/kWh at China sites, and 0.6766 kg CO₂e/kWh at Vietnam site.

3.2.4 Renewable Energy

Increasing the proportion of renewable energy usage is a key strategy for WNC's carbon reduction efforts. We not only continue to expand self-generated solar power installations but also plan to incrementally increase the proportion of renewable energy usage through long-term green energy purchasing contracts and Renewable Energy Certificates (RECs). WNC became a member of RE100 in 2023, making it the first network communications company in Taiwan to join the initiative. We aim to lead the value chain in responding to this initiative and work with our enterprise partners to achieve 100% renewable electricity usage by 2040.

In recent years, WNC installed additional rooftop solar panels at its primary production sites, and a further plan involving the installation of additional solar panels at plants in Kunshan and new installation of solar panels at the plant in Vietnam was realized in 2022. These panels began generating power by the end of 2022. By the end of 2023, our new S3 plant commenced usage of solar panels. We are also continuously evaluating the feasibility of installing additional solar panels at other plants. Up until now, WNC's solar farms have a total installed capacity of 7.3 MW and have generated a total of 7,000,939 kWh of electricity, 5,320,038 kWh of which was for self-use. In addition, WNC has also purchased International Renewable Energy Certificates (I-REC). The ratio of renewable energy use to total energy consumption at WNC was 16.02% in 2023, meeting the goal for the year.

Solar panels installed at WNC sites in China



Solar panels installed at WNC's Vietnam site



Solar power monitoring system used at WNC sites in China



Solar panels installed at S3 site



WNC's energy usage in the most recent four years ^{Note 1}

Item		Unit	2020	2021	2022	2023
Electricity	Pur-chased non-renewable energy (A)	Gigajoule	368,707	372,098	392,404	378,003
	Purchased renewable energy (B)	Gigajoule	0	0	24,480	54,000
	Self-generated renewable energy for self-use (C)	Gigajoule	1,329	1,413	3,428	19,152
Total power consumption		Gigajoule	370,036	373,511	420,312	451,155
Energy usage percentage ((B+C) / (A+B+C))		%	0.36%	0.38%	6.64%	16.21%

Note 1: The scope of the power consumption calculations covers WNC headquarters, S1, S3, WNC (Kunshan), NeWeb Service (Kunshan) Corporation, Wistron NeWeb (Kunshan), WebCom Communication (Kunshan), WebCom Communication (Kunshan) - Nanjing Branch, Vietnam plant, and WNC subsidiaries in the US and the UK. Subsidiaries in Germany and Japan adopt a work-from-home model and are therefore not included in the calculation.

Note 2: Purchased power statistics for WNC are compiled based on the utility billing cycle. Purchased power = Purchased non-renewable energy + purchased renewable energy (I-REC).

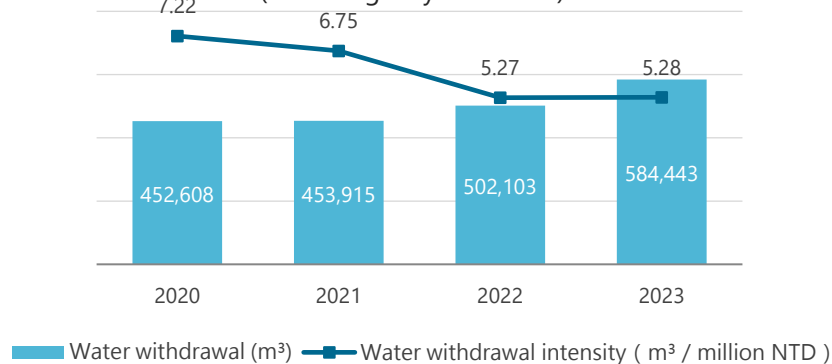
3.2.5 Water Resource Management

WNC is part of an R&D and technology intensive industry. Water for everyday use comprises the majority of water usage, with a small part comprising of water used by factory equipment and special manufacturing processes. WNC sites in Taiwan, China and Vietnam all use tap water. To manage water usage, we implement water management goals by monitoring water usage and implementing water conservation measures. Additionally, we conduct internal and external audits to ensure compliance with ISO 14001 standards.

For Taiwan sites, both S1 and S3 comply with local water standards. These sites have a high level of control over internal water usage. They not only develop water balance diagrams and inventory water resource uses but also regularly monitor and identify improvement plans to enhance water resource utilization. In 2023, significant water withdrawal and usage points within our sites in China were upgraded from mechanical water meters to smart water meters. This upgrade not only significantly reduces manual meter reading tasks but also enhances monitoring efficiency, allowing us to monitor water usage in real-time and promptly identify leaks. Additionally, through data collection, we gain a better understanding of water usage patterns.

In 2023, WNC's water withdrawal and the water withdrawal intensity were higher compared to the previous year due to the establishment of new sites in Tainan and Vietnam. However, overall water resource management was significantly effective, with a substantial 26.87% reduction in water withdrawal intensity (excluding recycled water) compared to the 2020 baseline year, achieving a 12% reduction target.

WNC's water usage intensity in the most recent four years
(excluding recycled water)



In terms of wastewater management, the S1 plant is the only plant with washing processes that generate wastewater. In response to the increase in generated wastewater due to plant expansion, wastewater treatment equipment was installed at S1 in 2020, and wastewater processing permits were obtained in 2021. Water discharge monitoring instruments were installed in the plant to ensure that the wastewater complies with the water quality management regulations of the Hsinchu Science Park's sewage system. The Hsinchu Science Park Administration tests the water discharged by WNC every month, and WNC has passed all tests. Additionally, the S3 Plant does not produce wastewater; only wastewater from everyday use is generated. The Southern Science Park Administration tests the water discharged by WNC every month, and WNC has passed all tests.

Every six months, WNC contracts an inspection agency approved by the National Environmental Research Academy to test the water discharged by WNC to ensure that said discharge meets wastewater discharge standards. Furthermore, regular wastewater education and training courses are conducted within factories to ensure that equipment operators and new employees are well-versed in wastewater management practices.

Wastewater from sites other than S1 is mainly wastewater from everyday use, which is planned discharge. Taiwan sites comply with the Regulations for the Use and Management of Wastewater Treatment and Sewage Systems in Science-based Parks. Before discharging wastewater into sewage systems and to sewage treatment plants, WNC determines whether the water quality meets wastewater discharge quality standards and uses a dedicated pipeline to treat the wastewater until it meets national effluent standards. The plants located in Kunshan discharge wastewater to the Kunshan sewage treatment plant in accordance with the Wastewater Quality Standards for Discharge to Municipal Sewers; the plants located in Nanjing discharge wastewater to the sewage treatment plant at the Nanjing Jiangning Economic and Technological Development Zone in accordance with the Nanjing City Water Drainage Management Regulations; the plant in Vietnam discharges wastewater into the Third Dong Van sewage treatment plant in accordance with the National Technical Regulation on Industrial Wastewater Regulations. Wastewater discharge quality at all WNC sites complies with local regulations. Water withdrawal and discharge by WNC sites has not had any significant impact on water sources.

3.2.6 Waste Management

WNC's waste sources include raw materials used in production (such as electronic parts, mechanical parts, and packaging materials), wood, plastics and paper generated during production processes, etc. In order to realize resource recycling and reduce environmental impact, WNC promotes green product design. At the same time, through cooperation with the supply chain, we promote the recycling of incoming packaging materials, and continue to optimize the resource classification management procedures in the factory to ensure the effective use of resources.

In order to effectively manage waste generation and waste handling, WNC has set up waste management indicators at each site, and manages and tracks the waste situation through an environmental data platform. If it is found that the standards are not met, the composition ratio of waste from each process or production source will be analyzed to check whether there is still room for improvement in waste resource recycling within the organization, or whether there is abnormal waste generation.

WNC also regularly tracks and manages the waste output structure and improves waste raw material removal methods. In terms of process waste, we continue to promote off-site reuse plans for solder dross, solder paste plastic containers, epoxy resin, and printed circuit board metal scraps. In terms of raw material packaging materials and containers, such as plastic trays, outer packaging cardboard boxes and Styrofoam boxes are negotiated with suppliers, requiring manufacturers to reuse them to achieve waste reduction, and the scope of negotiations is gradually expanded. For production consumables and test equipment, use and waste management are strengthened to create higher recycling benefits. For waste materials that cannot be reused, such as electrostatic bags, we promote the conversion of waste heat into energy.

In 2023, 6,615 tonnes of waste from operations were produced. Although overall waste production has increased with the increase in production capacity, the waste generation intensity in 2023 has been successfully reduced to 0.060 metric tons/million NTD through regular analysis and improvement of waste hotspots. At the same time, the resource recovery rate has also increased to 87.30%.

Waste generated by WNC in the most recent four years (Unit: tonnes)^{Note}

Category / Handling process			2020	2021	2022	2023
General business waste	Waste recycling	Reuse	0	0	0	55.50
		Recycling and reuse	3,672.37	3,456.62	4,899.55	4,053.59
		Other recycling methods	0	0	0	1,354.86
		Subtotal	3,672.37	3,456.62	4,899.55	5,463.94
	Waste disposal	Landfill	0	26.49	0	-
		Incineration (with energy recovery)	0	145.17	112.51	636.79
		Incineration (without energy recovery)	614.15	604.76	766.78	121.65
		Other	0	0	0	0
		Subtotal	614.15	776.42	879.29	758.44
	Subtotal (general business waste)		4,286.55	4,233.04	5,778.84	6,222.38
Hazardous operations waste	Waste recycling	Reuse	0	0	0	0
		Recycling and reuse	232.41	248.89	171.18	177.80
		Other recycling methods	0	0	6.74	132.72
		Subtotal	232.41	248.89	177.92	310.52
	Waste disposal	Landfill	0	0	0	0
		Incineration (with energy recovery)	0	0	0	16.44
		Incineration (without energy recovery)	48.62	94.91	108.56	65.46
		Other	7.89	6.36	6.69	0
		Subtotal	56.51	101.27	115.25	81.90
	Subtotal (hazardous operations)		288.90	350.16	293.17	392.42
Total			4,575.45	4,583.20	6,072.01	6,614.81

Note: The scope of waste weight calculations covers WNC headquarters, S1, S3, WNC (Kunshan), NeWeb Service (Kunshan) Corporation, Wistron NeWeb (Kunshan), WebCom Communication (Kunshan), and the Vietnam plant. Statistics are rounded to the second decimal place.

3.2.7 Physical Risk Response Strategy

Although WNC's own sites are located in areas with medium to low disaster risk, it is still necessary to continuously monitor changes in disaster risk and regularly track the risk situation. In terms of water resource management, WNC has established water intensity indicators and targets to regularly track and manage effectiveness. Additionally, we have developed a Business Continuity Plan (BCP) that includes emergency response measures, disaster recovery actions, and regular drill plans for each site. We also integrate risk analysis findings into supplier negotiations and recommend that suppliers strengthen their disaster response measures, such as improving drainage systems and elevating foundations.

Specifically, we have developed the following adaptation plans for flood and drought risks:

Flood prevention plan

- Establishment of a flood prevention team and regularly conducting of emergency drills.
- Regularly updated flood risk maps to ensure that all employees are aware of risk areas.
- Reinforced construction of flood prevention facilities, such as levees and drainage systems, to enhance flood resistance.

Drought resistance plan

- Establishment of a flood prevention team and regularly emergency drills.
- Development of diversified water resources, such as rainwater harvesting, to ensure a stable water supply.
- Enhance the application of water-saving technologies and equipment, and improve water resource management to ensure adequate water supply during droughts.
- Raise water conservation awareness and encourage employees to save water.



04

Metrics and Targets

Organization GHG Emissions

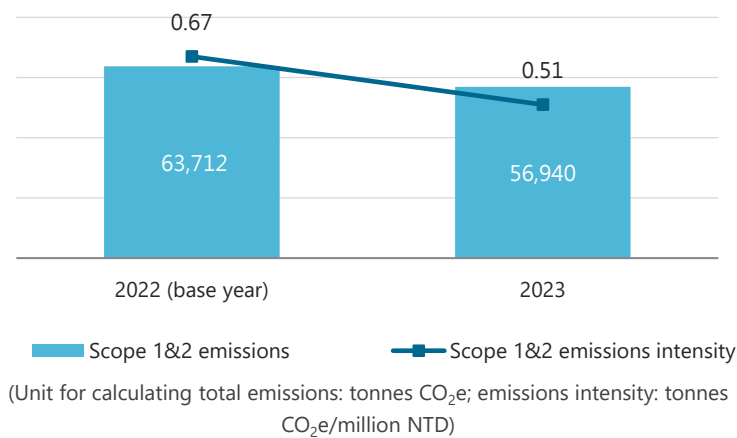
Short-, mid-, and long-term Climate Transition Plan



4.1 Organization GHG Emissions

WNC has referenced ISO 14064-1: 2018 and the GHG Protocol to set organizational boundaries according to operational control laws. We established 2022 as the base year to calculate our greenhouse gas emissions and for verification purposes. In 2023, WNC formulated goals superior to those initiated by the Financial Supervisory Commission in 2022 in the TWSE Listed and TPEx Listed Companies Sustainable Development Roadmap, accelerating the process of greenhouse gas inventories. By the end of January 2024, greenhouse gas inventory operations for all existing sites had been completed, and verification of the greenhouse gas inventory for WNC and all companies included in its consolidated financial statements is expected to be completed in 2024. In 2023, our Scope 1 direct greenhouse gas emissions were 1,831.52 tonnes CO₂e, Scope 2 (market-based) indirect greenhouse gas emissions were 55,108.07 tonnes CO₂e, and Scope 3 indirect greenhouse gas emissions were 3,708,933.68 tonnes CO₂e. In 2023, greenhouse gas inventory data has been verified by a third-party organization, and a verification statement has been obtained.

WNC's Scope 1 and Scope 2 (market-based) GHG Emissions in recent years



WNC’s Scope 1 and Scope 2 GHG Emissions for the most recent two years ^{Note 1}
(Unit: tonnes CO₂e)

Category	2022 (Base year)	2023
Scope 1 emissions	2,361.30	1,831.52
Scope 2 emissions (market-based) ^{Note 2}	61,350.44	55,108.07
Scope 3 emissions ^{Note 3}	195,385.10	3,708,933.68
Total emissions	259,096.85	3,765,873.27

Note 1: The scope of the Scope 1 and Scope 2 GHG emissions inventory in 2023 covered WNC headquarters, S1, S3, WNC (Kunshan), NeWeb Service (Kunshan) Corporation, Wistron NeWeb (Kunshan), WebCom Communication (Kunshan), WebCom Communication (Kunshan) - Nanjing Branch, Vietnam plant and subsidiaries in the US, UK. Subsidiaries in Germany and Japan adopt a work-from-home model and were therefore not included in calculations. The scope of the Scope 3 GHG emissions inventory covered WNC headquarters, S1, S3, WNC (Kunshan), NeWeb Service (Kunshan) Corporation, Wistron NeWeb (Kunshan), WebCom Communication (Kunshan), WebCom Communication (Kunshan) - Nanjing Branch, Vietnam plant. Subsidiaries in the US, UK, Germany and Japan inventoried only the business travel category for Scope 3 GHG emissions.

Note 2: In 2023, emission factors for Scope 1 were sourced from the Environmental Protection Agency’s announced Greenhouse Gas Emission Factor Table (6.0.4), with the latest AR6 values selected for all greenhouse gases’ Global Warming Potential (GWP) values. The carbon emission factors for Scope 2 were derived from the latest values announced by the local government.

Note 3: 2023 Scope 3 emissions data are classified according to the requirements of the GHG Protocol or ISO 14064-1. Coefficient sources vary based on the location of the facility. For Taiwan-based sites, we utilize information from the Product Carbon Footprint Database. For sites outside of Taiwan, we rely on data from the Ecoinvent 3.9.1 and EF database 3.1. Additionally, for categories related to air transportation, we use data from the ICEC database.

WNC’s GHG Emissions^{Note} for the most recent two years (Unit: tonnes CO₂e)

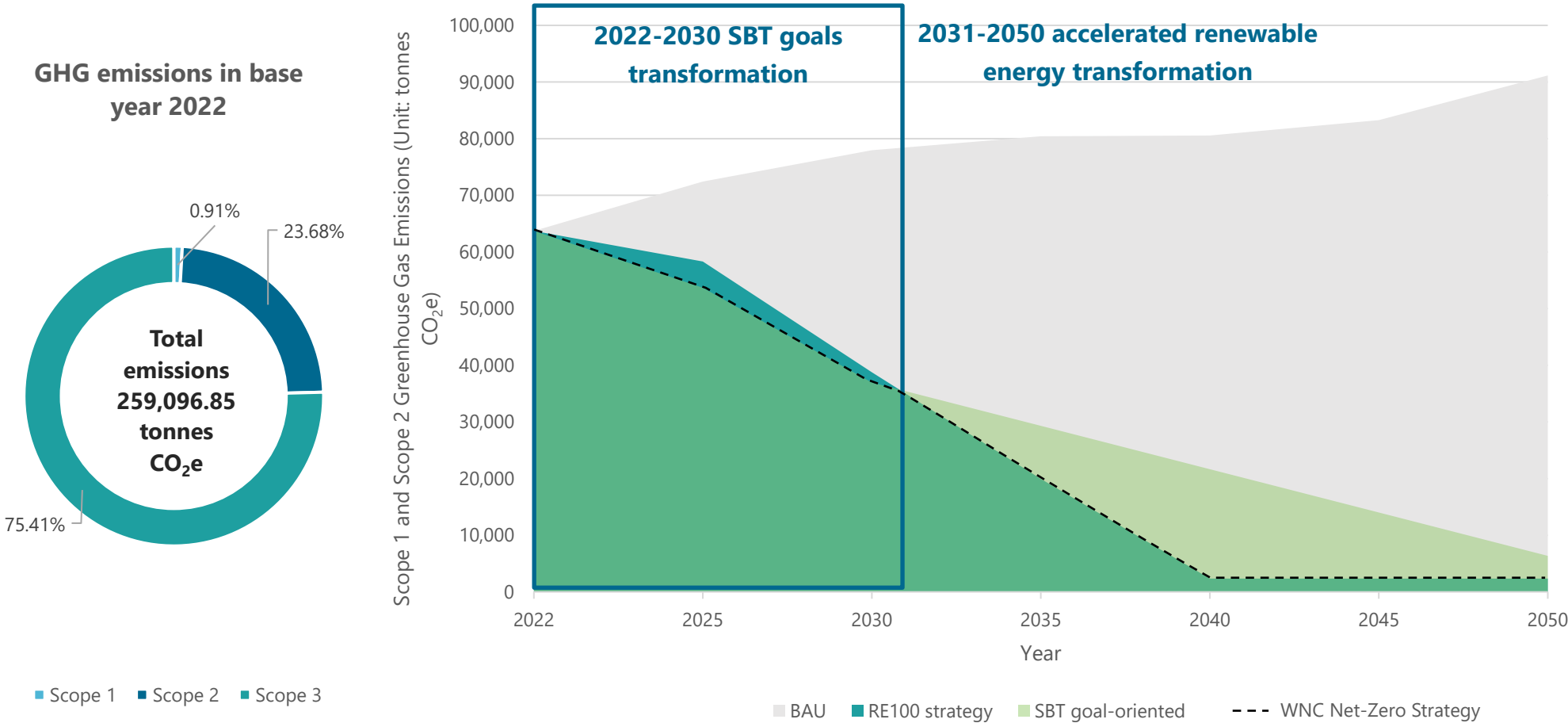
Report Aspect	Year	Wistron NeWeb Corporation	Subsidiaries
Scope 1 emissions: direct	2022 (base year)	658.96	1,702.34
	2023	970.39	861.13
Scope 2 emissions: indirect	2022 (base year)	28,639.09	32,711.35
	2023	30,735.01	24,373.07
Scope 3 GHG emissions: indirect	2022 (base year)	163,470.74	31,914.37
	2023	3,070,529.84	638,403.83
Total emissions	2022 (base year)	192,768.79	66,328.06
	2023	3,102,235.24	663,638.03

Note: The WNC parent company covers WNC headquarters, S1, S3, WNC (Kunshan), NeWeb Service (Kunshan) Corporation, Wistron NeWeb (Kunshan), WebCom Communication (Kunshan), WebCom Communication (Kunshan) - Nanjing Branch, Vietnam plant, and WNC subsidiaries in the US, UK, Germany and Japan. The scope of the power consumption calculations in 2022 didn't cover subsidiaries in the US, UK, Germany and Japan.



4.2 Short-, mid-, and long-term Climate Transition Plan

WNC deeply understands that carbon reduction is a necessary step towards sustainability. Achieving this goal early not only contributes more significantly to environmental protection but also enables the company to promptly respond to external changes and strengthen its resilience. In response to international sustainability trends, WNC signed the Science Based Targets initiative (SBTi) commitment letter in 2023. Through formulating scientific carbon reduction goals, WNC has pledged to achieve a 42% reduction in Scope 1 and Scope 2 emissions by 2030 and reach net-zero emissions by 2050 taking 2022 as the base year. WNC also joined RE100 in 2023, committing to using 100% renewable energy by 2040. By aligning with international climate initiatives, WNC aims to enhance its response to climate change, improve its business resilience, demonstrate its commitment to carbon reduction, and lead its value chain towards net-zero emissions.



Climate and Environmental Management Metrics and Targets

Material Topics	Performance Indicators	2022 Results		2023 Results		Future Goals			Corresponding SDGs
		Target	Result	Target	Result	Short-term (2024)	Mid-term (2025)	Long-term (2030)	
Climate Strategy	2023 renewable energy use rate	6%	6.65%	10%	16.02%	20%	25%	50%	7.2 Increase substantially the share of renewable energy in the global energy mix.
	Absolute reduction of Scope 1 and Scope 2 GHG emissions taking 2022 as the base year	-- New Target	--	-5.25%	-10.63%	-10.50%	-15.75%	-42.00%	13.2 Integrate climate change measures into national policies, strategies and planning.
	Biodiversity projects	N/A	N/A	-- New Target	Joined the Taiwan Nature Positive Initiative (TNPI)	- WNC Forestry Project Draw on previous experience to increase tree planting and size of area restored - Continue to work with NTU to implement native trees survey, monitoring and restoration effectiveness tracking			15.1 Ensure the conservation, restoration and sustainable use of freshwater ecosystems and their services, in particular forests, wetlands, mountains and drylands.
Green Products	Product carbon footprint inventory	-- New Target	--	.	Carbon footprint inventory completed for 4 products	Carbon footprint inventory completed for 16 products	Carbon footprint inventory completed for 30 products	Carbon footprint inventory completed for 50% of revenue-contributing products	13.2 Integrate climate change measures into national policies, strategies and planning.
	Establish a low carbon materials selection mechanism	N/A	N/A	-- New Target	--	Build a carbon emissions database for components	Link component BOMs to the emissions database Introduce low carbon materials selection for new products	Reduce carbon materials selection design, evaluate product carbon emissions	

Environmental Management ^{Note 1}	Power consumption has dropped compared to the previous year ^{Note 2}	N/A	N/A	-- New Target	-8.13%	-3%	-2%	-1%	7.3	Global energy efficiency improvement rate of 100%
	Water usage intensity reduction taking 2022 as the base year (excluding recycled water) ^{Note 3}	-10%	-27.01%	-12%	-26.87%	-12.5%	-13%	-18%	13.2	Integrate climate change measures into national policies, strategies and planning.
	Current year waste recycling rate	83%	84.7%	85%	87.30%	87%	90%	90%		
	Waste generation intensity reduction taking 2021 as the base year ^{Note 4}	-3%	-5.88%	-5%	-11.76%	-8%	-10%	-10%		

Note 1: Goals listed here do not apply to WNC subsidiaries in the US, UK, Germany and Japan.

Note 2: Energy usage intensity (MWh/million NTD) is obtained by dividing energy consumption by consolidated revenue.

Note 3: Water usage intensity (cubic meters/million NTD) is obtained by dividing water usage by consolidated revenue.

Note 4: Waste generation intensity (tonnes/million NTD) is obtained by dividing the amount of waste generated by consolidated revenue.



05

Appendix

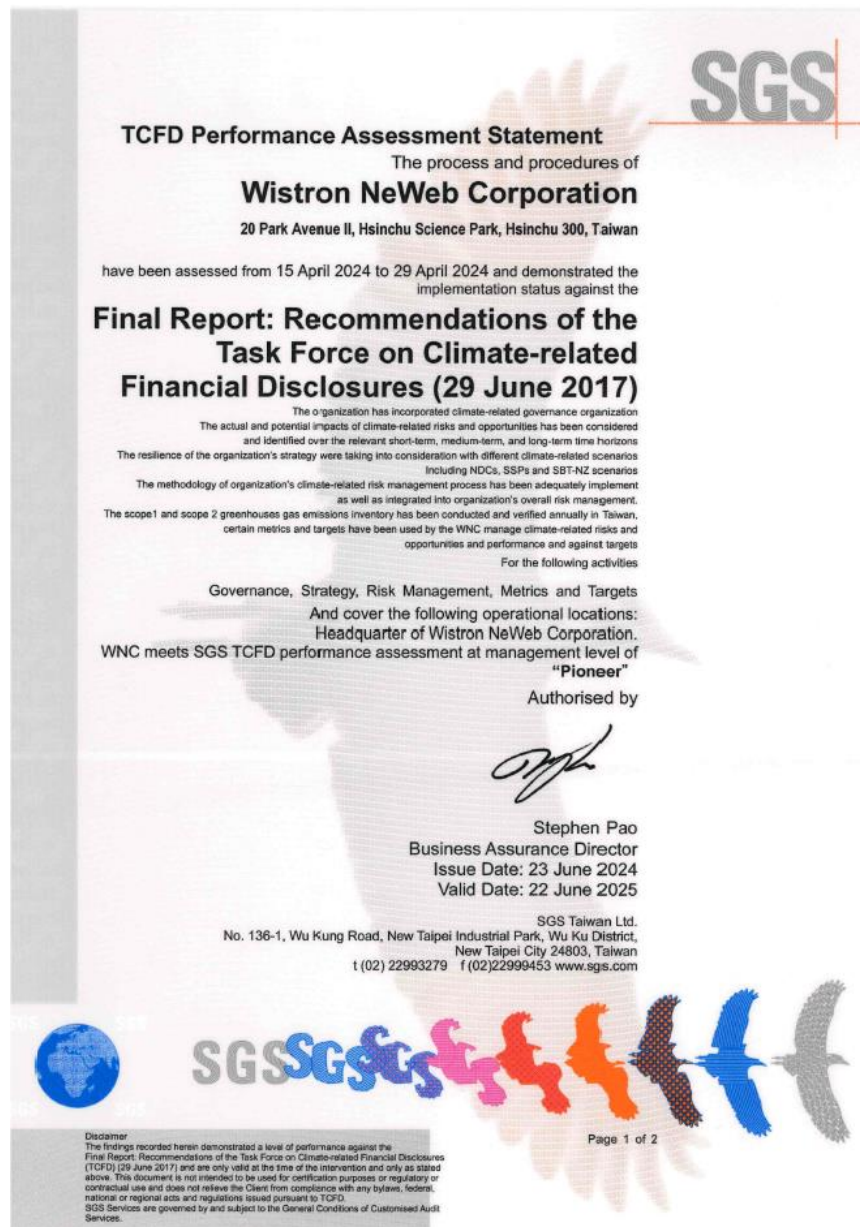


WNC will uphold its commitment to sustainability, dedicating itself to climate mitigation and adaptation efforts. Through concrete actions, it will implement greenhouse gas management, energy management, water resource management, and waste management. Additionally, it will establish a green supply chain, and strengthen communication and cooperation with stakeholders, leading the entire value chain to join the carbon reduction initiative. We will utilize the Climate-related Financial Disclosures (TCFD) framework to gain in-depth insights into all risks posed by climate change, while also seizing the opportunities presented by the net-zero transition era. By formulating effective response plans, we aim to enhance the operational resilience of our company, and collaborate with value chain partners to establish a low-carbon network, moving towards a sustainable net-zero vision.

TCFD Recommended Disclosures

Recommended Disclosures	Chapter	Page
Governance		
a) Describe the board's oversight of climate-related risks and opportunities.	1-1 Board of Directors Governance Structure	P.5-6
b) Describe management's role in assessing and managing climate-related risks and opportunities.	1-2 Management Levels Responsibilities	P.7
Strategy		
a) Describe the climate-related risks and opportunities the company has identified over the short, medium, and long term.	2-1 Identification of Climate-related Risks and Opportunities	P.9-11
b) Describe the impact of climate-related risks and opportunities on the company's businesses, strategy, and financial planning.	2-1 Identification of Climate-related Risks and Opportunities	P.9-11
c) Describe the resilience of the company's climate strategy, taking into consideration different climate-related scenarios, including a 2°C or lower scenario.	2-2 Climate Scenario Analysis	P.12-20
Risk Management		
a) Describe the company's processes for identifying and assessing climate-related risks.	2-1 Identification of Climate-related Risks and Opportunities	P.9-11
b) Describe the company's processes for managing climate-related risks.	2-1 Identification of Climate-related Risks and Opportunities	P.9-11
c) Describe how processes for identifying, assessing, and managing climate-related risks are integrated into the company's overall risk management.	3-1 Risk Management Structure	P.22
Metrics and Targets		
a) Disclose the metrics used by the company to assess climate-related risks and opportunities in line with its climate strategy and risk management process.	4-2 Short-, mid-, and long-term Climate Transition Plan	P.32-33
b) Disclose Scope 1, Scope 2, and, if appropriate, Scope 3 greenhouse gas (GHG) emissions, and the related risks.	4-1 Organization GHG Emissions	P.31
c) Describe the targets used by the company to manage climate-related risks and opportunities and performance against targets.	4-2 Short-, mid-, and long-term Climate Transition Plan	P.32-33

Third Party Performance Evaluation Declaration





www.wnc.com.tw

Wistron NeWeb Corporation

20 Park Avenue II, Hsinchu Science Park
Hsinchu 300, Taiwan

Tel: +886 3 666 7799 Fax: +886 3 666 7711