

# 2023 TCFD

## Climate-related Assessment Report

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# About This Report

This report is the second climate-related assessment report of Wiyynn Corporation (hereinafter referred to as "Wiyynn" or "the Company"). It is prepared in reference to the Recommendations of the Task Force on Climate-related Financial Disclosures (TCFD) and aims to inform all stakeholders of Wiyynn's evaluation and governance regarding climate issues. For more detailed information on environmental, social, and governance aspects, please refer to the Wiyynn 2023 Sustainability Report.

The scope and boundary of this report include all subsidiaries of Wiyynn Corporation consolidated in the financial statements (see note). This report is available in both Chinese and English and is published on the Wiyynn official website in the "Sustainability" section.

We sincerely welcome any suggestions regarding this report or Wiyynn's sustainable development. Please feel free to contact us.



**Office for Sustainable Development**



**+886-2-6615-8888**



**esg@wiyynn.com**



**<https://www.wiyynn.com/zh-hant/about-wiyynn/sustainability/>**



ESG Website



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Note: Please refer to the Company's 2023 financial report.




# Preface


In recent years, the impact of climate change has shifted perspectives on energy and resource usage globally, posing operational challenges for various economies. Since 2019, Wiyynn has disclosed climate change-related information in its corporate sustainability reports following the TCFD recommendations. Wiyynn continuously integrates various plans into its operational and investment decisions to address the challenges and opportunities presented by climate change. This effort aims to enhance the implementation of climate change solutions, reduce greenhouse gas emissions, and fulfill corporate social responsibility.

## Climate-related Highlights


- 2019




- **Completion of introducing TCFD disclosure recommendations.**  
Disclose climate change-related information according to the TCFD recommendations.
- 2020




- **Established the Corporate Sustainability Committee.**  
Officially established the committee as the highest governance unit for climate issues.
  - **Verifications Passed.**  
Introduced ISO 14064-1:2018 at the operational headquarters.
  - **Reduce 30% greenhouse gas emission intensity by 2030 compared to 2020 levels.**  
Set carbon reduction targets.
  - **Achieve 30% renewable energy usage by 2030.**  
Commitment to using renewable energy.
- 2021



- **Risk Integration.**  
The "Corporate Sustainability Committee," a functional committee of the Board of Directors, oversees climate issues, incorporating related risks and opportunities into overall risk evaluation and supervising overall risk management to ensure the operational effectiveness of the management mechanisms.
  - **Level 5 Excellence Grade.**  
Result of the third-party TCFD report conformity check.
  - **Approximately 89% of the plastic used is recycled plastic (calculation base included 40% of all products).**  
Gradual incorporation of recycled plastic into products.
- 2022



- **27.73%**  
Global renewable energy usage.
  - **100%**  
Achieved full conversion to green electricity at the operational headquarters.
- 2023



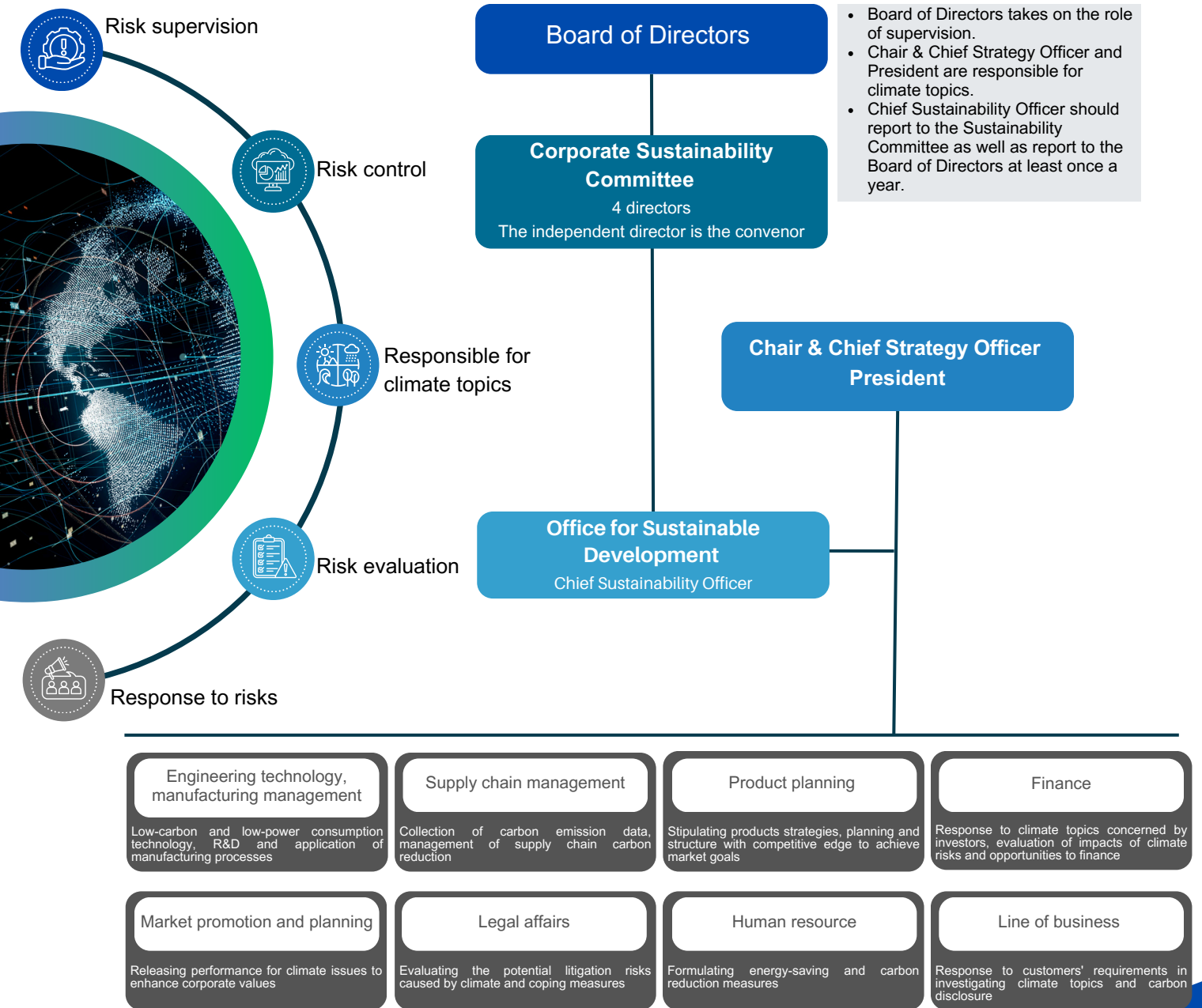
- **Well-Below 2°C**  
Carbon reduction targets verified by SBTi.
  - **Carbon emission data integration and management.**  
Established the system of carbon management platform.
  - **2.53%**  
Renewable energy usage rate at the Tainan factory by the end of 2023.
  - **1,189MWh**  
Installed rooftop solar panels at the Malaysia plant (WYMY), contributing 31% of its electricity consumption.
  - **100% global renewable energy usage**  
100% renewable energy usage by 2030.
  - **Net-Zero**  
Net-zero emissions by 2040.
  - **57.07%**  
Global renewable energy usage rate.
  - **4.4times**  
Growth in the carbon reduction benefits from material selection, application, and end-of-life stages of products compared to 2022.



# 1. Fulfilling Climate Accountability

## Climate Issue Management Organizational Structure

The "Corporate Sustainability Committee," a functional committee of the Board of Directors, is responsible for managing climate issue risks. The Board of Directors oversees climate issues, incorporating their risks and opportunities into overall risk evaluations, supervising overall risk management, and ensuring the operational effectiveness of the management mechanisms.





## 1.1 Climate Governance Organization

The Board of Directors is the highest governance unit for climate issues, incorporating the risks and opportunities of climate issues into overall risk evaluations, supervising overall risk management, and ensuring the operational effectiveness of the management mechanisms.

The Corporate Sustainability Committee, a functional committee under the Board of Directors, is responsible for climate risk management and assists the Board in reviewing climate policies, strategies, and targets. Comprising four directors, with an independent director appointed as the convener, the committee meets at least twice a year. In 2023, the committee approved the goals of achieving 100% global renewable energy usage by 2030 and net-zero emissions by 2040.

The Chief Sustainability Officer reports on climate issues to the Corporate Sustainability Committee and the Board of Directors annually, with the most recent report on August 7, 2023.

## 1.2 Senior Management Responsibility

The Chief Strategy Officer and the President are the highest responsible individuals for climate issue management, tasked with formulating and directing climate strategies. The Chief Sustainability Officer and heads of various operational units are responsible for climate issues' risk assessment and develop management plans based on strategic objectives, and report management results to the Chief Strategy Officer and the President through regular monthly meetings to ensure the achievement of goals.

## 1.3 Performance and Compensation Linkage

The climate strategy centers on "Eco-friendly operation," "sustainable supply chain," and "Innovation with green technology," encompassing commitments to renewable energy usage, reducing power consumption of the manufacturing process, supply chain carbon reduction actions, and optimizing product energy-saving and carbon-reduction designs. Senior executives (including the President and those a level below) must set climate-specific key performance indicators (KPIs), accounting for at least 10% of their performance evaluations. Short-term (2025) targets include achieving 75% renewable energy usage at operational sites based on local regulations and resource planning, third-party verification of greenhouse gas emissions for 60% of the suppliers, and over 60% of products being low carbon. This effectively links individual performance with compensation, motivating and strengthening goal execution.

In addition to senior executives, there is an "Energy Saving and Carbon Reduction Incentive Procedure" for general employees, which includes proposal bonuses for greenhouse gas reduction and energy efficiency improvement initiatives. This encourages employees to submit proposals, raising sustainability awareness, and promoting the practice and advancement of climate strategies.



## 2. Development Strategy Plan

Wiwynn integrates climate change responses into its core business strategy, achieving sustainable development through risk and opportunity identification, scenario analysis, and risk management (e.g., technological innovation, resource conservation). This reduces the negative environmental impact of operations while enhancing corporate competitiveness and long-term development potential.

### 2.1 Raising Climate Awareness

The Office for Sustainable Development and operational units collect climate issues at least once a year based on internal and external topics, referencing peer and benchmark companies. Identified risks are categorized into transition and physical risks, including current regulations, emerging regulations, technology, market, reputation, litigation, acute and chronic disasters. The time horizons are defined as short-term (1-3 years), mid-term (3-5 years), and long-term (5+ years). Regulatory requirements related to climate change, such as the "Climate Change Response Act," "Renewable Energy Development Act," and various local low-carbon city ordinances, are also taken into consideration. Matrix analysis is conducted based on levels of impact and likelihood to identify risks and opportunities in the upstream and downstream of the value chain, and the organization itself. Using coefficients from the SSP Public Database, TCCIP future projections, and international industry trend reports, the potential financial impacts of climate change risks and opportunities on the company's finance are confirmed.

The Chief Strategy Officer and the President monitor the implementation of climate strategies and management plans through regular monthly meetings, with the Chief Sustainability Officer reporting to the Corporate Sustainability Committee and the Board of Directors.

### 2.2 Determining Significant Impacts

Climate-related risks with significant impacts identified in 2023 that have high levels of impact and high probabilities of occurrence were the followings: technology transformation of products, investment to new technology, and the demands for low carbon emission products. Year 2023 was regarded as the first year of generative AI. In this year, technology and relevant applications changed rapidly, demands on computing capacity increased significantly, and technology of carbon reduction and cooling became the focuses of attention. At the same time, these were also one of the great challenges when facing climate issues. What came next are net zero emission and carbon pricing. While net zero emission gradually becomes global consensus, policies established by the governments of state also affect climate strategies in enterprises in order to connect with international policies at the dawn of the carbon pricing era.

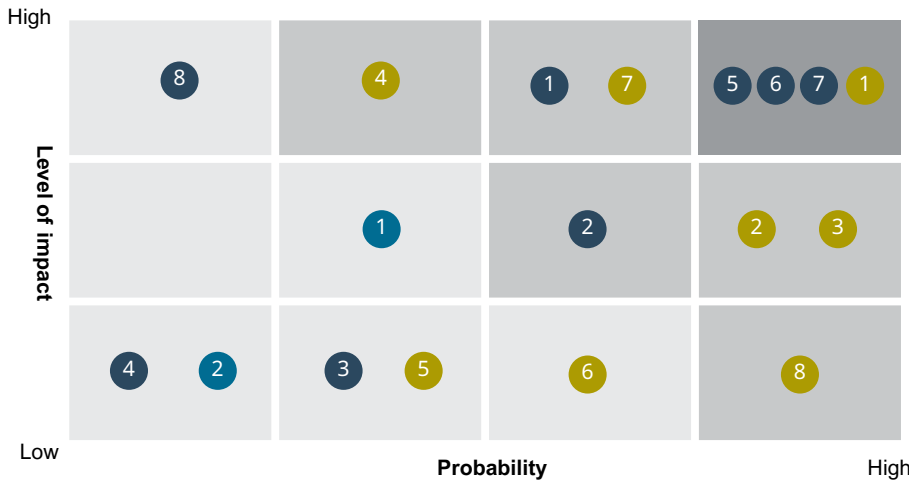
In terms of physical risks. The level of impact and the probability of occurrence presented by extreme rainfall and drought are higher. Along with the worsening of global warming, the forms and patterns of extreme climates, no matter the intensity or frequency, are more centralized in certain regions and the disasters and losses caused are greater as well. There are many uncertainties in the future of climate, and it will continue challenging operational resilience of enterprises.

As for climate-related opportunities. Along with the evolution of AI technology, the development of low-carbon products is a key opportunity when facing climate topics. It is then followed by recycled material application and development, and low-carbon energy. The lack of natural resources is one of the ten key risks in the next decade, from the 2024 Global Risks Report published by the World Economic Forum. Reducing the use of virgin materials, increasing applications of recycled materials, and lowering the dependency on fossil fuel are opportunities for enhancing operational resilience.





## Matrix of climate risks and opportunities



### Transitional risks

1. Net zero emission
2. Carbon pricing
3. Legal regulations and standards for product efficiency
4. Uncertainty of legal regulations / lack of regulatory legitimacy
5. Product technology transformation
6. Demands for low-carbon emission products
7. New technology investment
8. Water resource management

### Physical risks

1. Extreme rainfall and drought
2. Change of average temperature

### Opportunities

1. Development of low-carbon products
2. Recycled material application
3. Development of recycled materials
4. Manufacturing process improvements
5. Enhancement of energy efficiency
6. Energy-saving building
7. Low-carbon energy
8. Sustainability rating

### Transitional risks

Item	Level of risk	Location	Time	Impact/ financial effect	Response/ measures
1	High	Upstream Organization Downstream	Short term – medium term	Increased operating costs, increased R&D expenditure, and increased direct costs	Through the renewable energy planning by the Group and the introduction of the carbon management platform for carbon emission data collection, we work with our supply chain to implement carbon reduction. Carbon reduction management has been introduced into product development, manufacturing, transportation, utilization, and disposal. We are devoted to fulfilling the two major long-term goals of 100% renewable energy utilization by 2030 and net zero emission by 2040.
2	Medium	Organization	Short term – medium term	Increased operating costs	We introduced the carbon management platform in our global sites to establish carbon management data. Through paying attention to the different carbon management measures, including “carbon tax”, “carbon fee” and “carbon border tax”, we could have a better control of the financial impacts caused by carbon pricing.
3	Medium-low	Organization Downstream	Medium term – long terms	Increased direct costs	In response to the latest requirement of Lot 9 (see note) , Wiyynn started to use power supply units with titanium PSU efficiency (96%@50%load) from 2024. Note: Lot 9 is the regulations published by the European Union for material efficiency on server and network data storage products.
4	Medium-low	Organization	Long term	Increased operating costs	Continued paying attention on the development of local regulations and policies at operational sites and adjusting responding measures timely
5	High	Organization	Short term	Increased R&D expenditure, increased development costs, increased capital expenditure, increased operating costs	Invested R&D resources in liquid cooling and immersion cooling technologies to respond to the issue of high energy consumption caused by the change of technology
6	High	Downstream	Short term	Reduced revenue	
7	High	Organization	Short term	Increased operating costs	Through careful evaluation and approval procedures, we grasp promising technology investment opportunities and reduce risks effectively
8	High	Organization	Long term	Increased operating costs, increased capital expenditure	In the future, the new plant in Malaysia will use process water. To reduce and effectively utilize water resources, the Office for Sustainable Development and senior executives have discussed plans to divert water to secondary use or landscape irrigation through multi-stage purification processes. This plan is still ongoing.





## Physical risks

Item	Level of risk	Location	Time	Impact/ financial effect	Response/ measures	
1	Extreme rainfall and drought	Medium	Upstream Organization Downstream	Medium term – long term	Increased labor and management costs, impairment loss of assets, increased capital expenditure	In 2023, we passed ISO22301:2019 business continuity management system and established multiple business continuity plan (BCP). We conducted exercise regularly to reduce property loss or personnel injury caused by business interruption.
2	Change of average temperature	Medium-low	Upstream Organization Downstream	Long term	Increased operating costs, increased capital expenditure	Different scenarios would be considered every year according to the status of climate change to evaluate risks and opportunities, confirming the impacts to the Company's finance caused by risks and opportunities of climate change, and to establish responding measures timely

## Opportunities

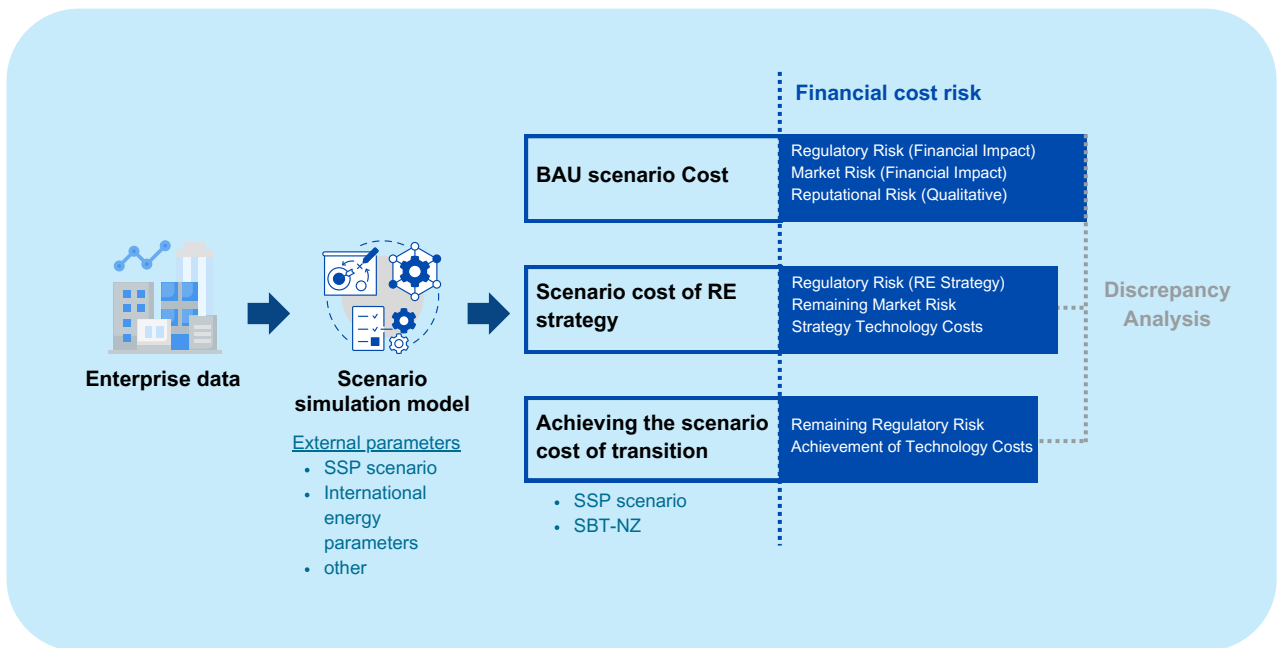
Item	Level of risk	Location	Time	Impact/ financial effect	Response/ measures	
1	Development of low-carbon products	High	Organization	Short term	Increased customers, increased revenue	<b>Carbon reduction effect of product operation</b> The carbon reduction benefits of two products in sales have been calculated. Over the lifecycle of these products, the energy savings to our downstream customers amounted to 8,080,383 kWh, equivalent to a reduction of 3,992 tons CO <sub>2</sub> e.
2	Recycled material application	Medium	Organization	Short term	Enhancing corporate image, creating green supply chain, increasing revenue	<b>Carbon reduction benefits from product material selection; application, and end-of-life cycle</b> The use of recycled materials and plastic reduction designs can reduce 2,490 tons CO <sub>2</sub> e. Additionally, recycling and reusing memory at the end of the product's life cycle can reduce 158 tons CO <sub>2</sub> e. In 2023, the total carbon reduction benefit reached 2,648 tons CO <sub>2</sub> e, compared to 489.5 tons CO <sub>2</sub> e in 2022, representing an increase of approximately 4.4 times.
3	Development of recycled materials	Medium	Upstream	Short term		
4	Manufacturing process improvements	High	Organization	Medium term – long term	Reduced direct costs, reduced operating costs	Short-term, medium-term, and long-term goals of installing new production lines globally for low-power consumption PCBA and reducing power consumption during the idle time of rack testing.
5	Enhancement of energy efficiency	Low	Organization	Medium term – long term	Reduced operating costs	Measures of energy saving and carbon reduction were estimated to save 353,789 kWh of electricity every year, and reduced around NT\$1.06 million of the electricity bill, which is equivalent to the reduction of 167.90 tons of carbon dioxide emissions. We will keep improving our energy-saving measures and enhancing equipment efficiency to achieve a more effective energy usage.
6	Energy-saving building	Low	Organization	Short term – medium term	Reduced direct costs, reduced operating costs	Our new plant in Malaysia is expected to obtain GBI green building mark in 2024. Its energy-saving effect could go as high as 30.37%. It saves around 6,361,464 kWh of energy every year and reduces nearly NT\$20 million in electricity expense (when 1 kWh= NT\$3).
7	Low-carbon energy	High	Organization	Short term – medium term	Reducing risks of rising fossil fuel price in the future, lowering the possibility of being fined	Based on the local situations, , we planned the use of renewable energy for each global operating site. In 2023, the global use of renewable energy of Wiyynn achieved 57.07%.
8	Sustainability rating	Low	Organization	Short term	Enhanced positive corporate image	Ranked in the top 10% of the 2024 S&P Global CSA score and were named an "Industry Mover", obtained A- in the CDP climate change category



## 2.3 Transition Scenario Analysis

### 2.3.1 Wiyynn's Transition Scenario Analysis

Wiyynn's transition scenario analysis integrates the IPCC (Intergovernmental Panel on Climate Change) Sixth Assessment Report (AR6) scenarios known as Shared Socioeconomic Pathways (SSP) and international energy parameters as climate scenarios. This framework combines existing data analysis to assess the potential financial impacts under Business As Usual (BAU) scenarios, considering only current strategy implementations. It also estimates potential costs associated with implemented or planned strategies, comparing the gap between BAU and transition scenarios.



Framework For Transition Risk Assessment



## 2.3.2 Definition of Objectives and Scopes

### 1 Assessment Objectives

The primary objective of the scenario analysis is to evaluate the financial impacts of climate transition risks. Different risk categories, regulatory, market, and reputational, can lead to varying financial impacts:

- 1.Regulatory risks primarily affect operating costs and capital expenditures (financial impacts).
2. Market risks predominantly influence expected revenue losses (financial impacts).
- 3.Reputational risks involve qualitative analysis.

Estimation of Transition Strategy Management Costs

- 1.RE Strategy (anticipated renewable energy procurement strategy)
- 2.Analysis of cost gaps to achieve transition scenarios

### 2 Boundary and Scope Assessment

This report explores three primary external scenarios of transition risk:

1. Government Net Zero Pathway
- 2.Achievement of SSP1-1.9 pathway as per IPCC AR6
- 3.Most stringent transition scenario, requiring net-zero by 2050 with annual reductions of 4.2% (SBT-NZ), aligned with science-based decarbonization goals.

Based on Wiyynn baseline data on future emissions estimates and existing strategies, the report examines potential risks under the Business-as-Usual (BAU) strategy. It also considers specific renewable energy development plans (RE strategy) and analyzes the cost gaps associated with implementing the RE strategy to meet various transition scenario objectives:

- 1.Financial impacts of transition scenarios under BAU
- 2.Financial impacts on enterprises under the three external transition scenarios with RE strategy
- 3.Cost estimates for enterprises achieving objectives under the three external transition scenarios

Scope and Boundaries of Scenario Analysis

External Transition Scenarios	Explanation	Applicable scope	Risk Assessment	Emission Sources
<b>Government Net-Zero Pathway</b>	Taiwan's net-zero target proposal as the evaluation basis	Wiyynn Corporation	Regulatory Risk Market Risk Technological Risk	Scope 1+Scope 2
<b>SSP1-1.9</b>	Following the SSP1-1.9 pathway outlined in IPCC AR6			Scope 1+Scope 2
<b>SBT-NZ</b>	Estimating scenarios to meet the SBT net-zero criteria			Scope 1+Scope 2



## 2 Simulation Parameter Factors

### Factors and assumptions for transition scenario analysis

Categories	Risks	Explanation	Cost Categories
Regulatory	Carbon tax	<p>Based on different scenarios, the carbon tax imposed per unit of carbon emissions for the Company varies. Such uncertainty is due to the substantial differences of the tax systems. This assessment primarily considers two categories of carbon tax:</p> <ol style="list-style-type: none"> <li>1. Government Net-Zero Pathway: Carbon tax of 300 NTD/tCO<sub>2</sub>e (approximately 10 USD/tCO<sub>2</sub>e) (World Bank, State and Trends of Carbon Pricing 2024).</li> <li>2. SSP1-1.9 and SBT-NZ: Carbon price under SSP1-1.9 (reaching around 650 USD/tCO<sub>2</sub>e by 2050).</li> </ol>	Operating cost
	Total Emission Cap	<p>Currently, international regulations and trends tend to favor levying carbon taxes rather than adopting carbon fines or total emission caps. <b>Therefore, only the government net-zero pathway considers additional carbon fines</b> (not exceeding 1500 NTD/tCO<sub>2</sub>e).</p>	Operating cost
Market	Risk of reduced market share for low-carbon products	<p><b>Parametric Assumption 1</b> The estimation of market risk is based on the potential loss of market share due to losing customer when the company fails to meet its carbon reduction targets.</p> <ol style="list-style-type: none"> <li>(1) Government Net-Zero Pathway: 1% of revenue loss.</li> <li>(2) SSP1-1.9 and SBT-NZ: 10% of revenue loss.</li> </ol> <p><b>Parametric Assumption 2</b> The remaining market risks are due to the difference between corporate emissions and transition targets.</p> $\text{Remaining market risk} = \frac{\text{Emission gap between RE strategy and transition scenario}}{\text{Emission gap between BAU and transition scenario}} \times \text{Expected market losses under BAU scenario}$	Projected Revenue



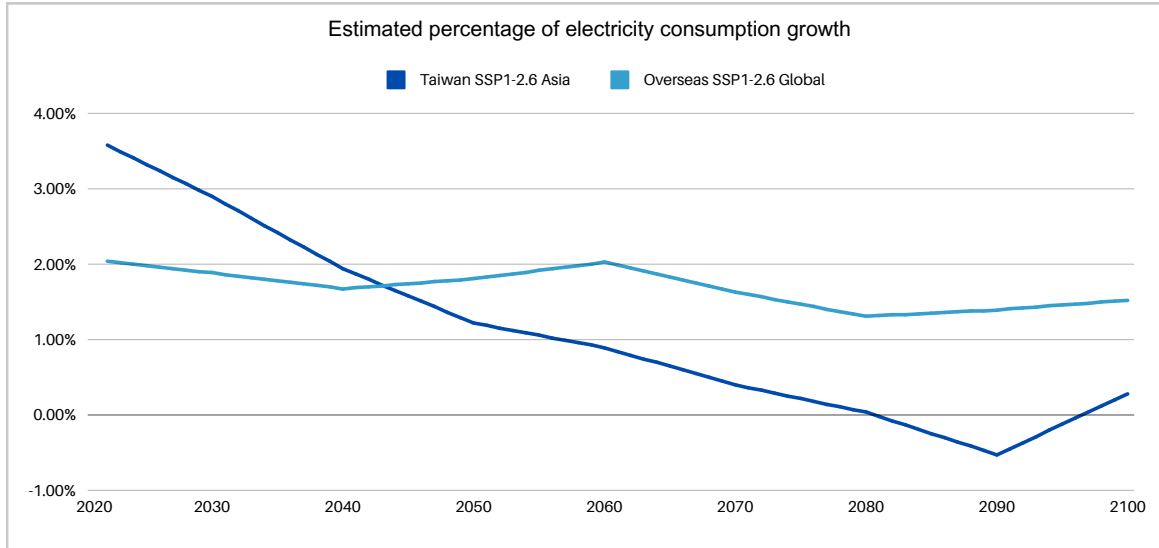
Categories	Risks	Explanation	Cost Categories																							
Technology	Construction costs of renewable energy	The installation cost of on-site renewable energy generation facilities is fully recognized as capital expenditure in the current fiscal year. The cost of renewable energy installation refers to IRENA's Power Generation Costs 2022.	Capital expenditure																							
	Operating costs of renewable energy	The operational costs of renewable energy are based on IRENA's Power Generation Costs 2022.	Operating cost																							
	Cost of renewable energy procurement	In Taiwan, the procurement cost of renewable energy is calculated based on the average selling price of renewable energy to Taiwan power Company, plus the public electricity fee (sourced from Taiwan power Company), in New Taiwan Dollars (NTD). <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th>Types of renewable energy</th> <th>Procurement cost (NTD/kWh)</th> </tr> </thead> <tbody> <tr> <td>Solar Energy</td> <td>4.99</td> </tr> <tr> <td>Onshore Wind Energy</td> <td>5.5</td> </tr> <tr> <td>REC</td> <td>5.7</td> </tr> <tr> <td>verage Purchase Price of Renewable Energy</td> <td>5.23</td> </tr> <tr> <td>Overseas Renewable Energy Purchase Prices</td> <td>0.103 (IEA Data) +0.0025 (REC fee)</td> </tr> </tbody> </table>	Types of renewable energy	Procurement cost (NTD/kWh)	Solar Energy	4.99	Onshore Wind Energy	5.5	REC	5.7	verage Purchase Price of Renewable Energy	5.23	Overseas Renewable Energy Purchase Prices	0.103 (IEA Data) +0.0025 (REC fee)	Operating cost											
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Electricity procurement costs	The cost of purchasing electricity from Taiwan Power Company are estimated at approximately 3.758 NTD/kWh. For overseas electricity prices, based on IEA data, the estimate is approximately 0.103 USD/kWh.	Operating cost																								
Cost of Carbon Removal	<p>According to IEA data, the cost of CCUS (Carbon Capture Utilization and Storage) varies depending on the approach used. Assuming carbon removal as a means to achieve net-zero emissions, the costs for direct air capture range from approximately 85 to 345 USD per metric ton of CO<sub>2</sub>equivalent (tCO<sub>2</sub>e):</p> <ol style="list-style-type: none"> <li>Immature technology: 340 USD/tCO<sub>2</sub>e</li> <li>Average price: 235 USD/tCO<sub>2</sub>e</li> <li>Mature technology: 130 USD/tCO<sub>2</sub>e</li> </ol> <table border="1" style="width: 100%; border-collapse: collapse;"> <caption>Estimated Cost of Carbon Removal (USD/tCO<sub>2</sub>e)</caption> <thead> <tr> <th>Industry</th> <th>Cost Range (USD/tCO<sub>2</sub>e)</th> </tr> </thead> <tbody> <tr> <td>Direct Air Capture</td> <td>150 - 340</td> </tr> <tr> <td>Power generation</td> <td>50 - 100</td> </tr> <tr> <td>Cement</td> <td>60 - 110</td> </tr> <tr> <td>Iron and steel</td> <td>50 - 100</td> </tr> <tr> <td>Compression only</td> <td>20 - 30</td> </tr> <tr> <td>Hydrogen (SMR)</td> <td>40 - 80</td> </tr> <tr> <td>Ethylene oxide</td> <td>20 - 30</td> </tr> <tr> <td>Bioethanol</td> <td>20 - 30</td> </tr> <tr> <td>Ammonia</td> <td>20 - 30</td> </tr> <tr> <td>Coal to chemicals</td> <td>20 - 30</td> </tr> <tr> <td>Natural gas processing</td> <td>20 - 30</td> </tr> </tbody> </table>	Industry	Cost Range (USD/tCO <sub>2</sub> e)	Direct Air Capture	150 - 340	Power generation	50 - 100	Cement	60 - 110	Iron and steel	50 - 100	Compression only	20 - 30	Hydrogen (SMR)	40 - 80	Ethylene oxide	20 - 30	Bioethanol	20 - 30	Ammonia	20 - 30	Coal to chemicals	20 - 30	Natural gas processing	20 - 30	Operating cost
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## 2.3.3 Baseline Scenario Emission Forecast

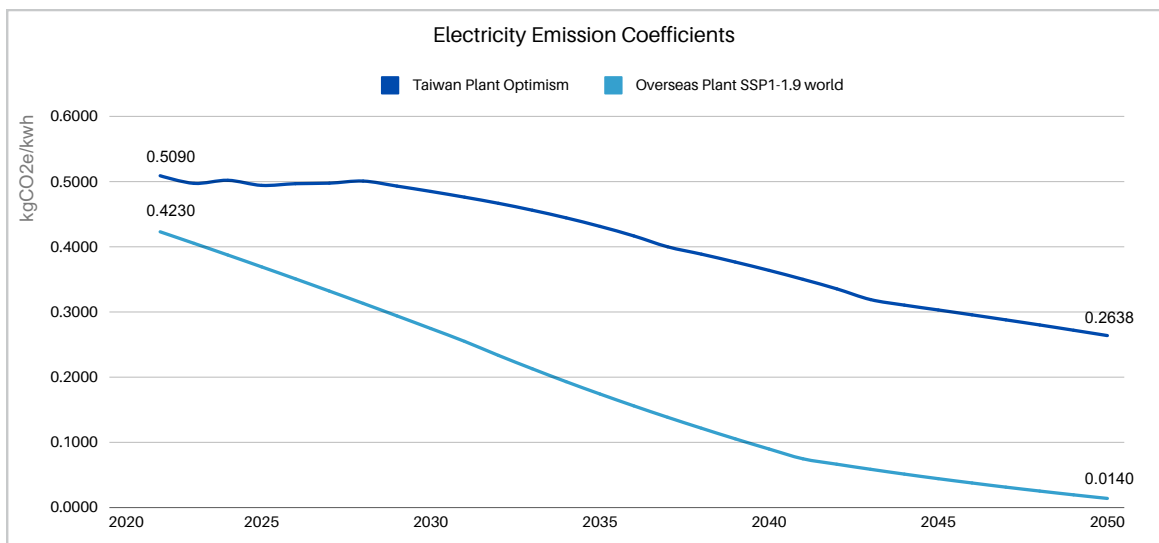
### 1 Assessment Objectives

- Scope 1 emission growth rate: Estimated at 0% growth.
- Electricity usage growth rate: Taiwan's electricity usage growth rate follows the SSP1-2.6 Asian values, while overseas facilities follow the SSP1-2.6 global growth rate.



Future emission growth parameters for electricity

- In Taiwan, the carbon emission coefficients for electricity and steam are calculated based on government energy policies up to 2050, reflecting changes under different scenarios. By 2030, Taiwan aims to achieve the current government's projected energy targets: 30% from coal, 50% from natural gas, and 20% from renewable energy sources. This mix will continue to evolve, reaching 50% renewable energy by 2050, replacing coal entirely (with a split of 50% natural gas and 50% renewable energy).
- Overseas electricity coefficients will follow the carbon intensity pathway outlined in SSP1-1.9, starting from the baseline year and decreasing along the same trajectory.



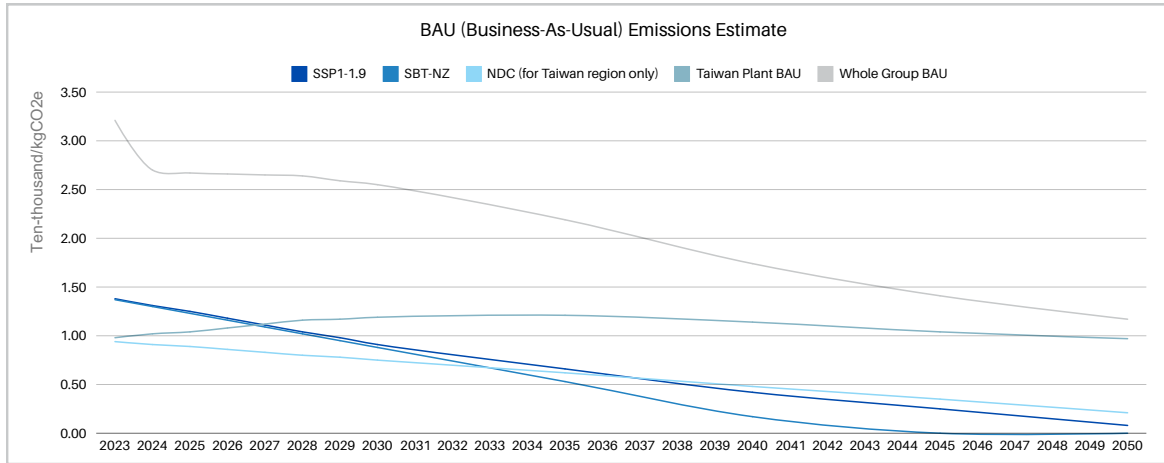
Electricity coefficient simulation (excluding government net-zero policies)



## 2 Estimated Results of Baseline Scenario

### • Transition Scenarios

Estimating emissions quotas under three different levels: government net-zero, SSP1-1.9, and SBT-NZ. Also projecting baseline emissions (without energy conservation or purchasing renewable energy). Using 2021 as the baseline year, and considering scenarios and relevant parameters, emissions are projected to reach 12,000 tons of CO<sub>2</sub>e by 2050, with Taiwan-based facilities contributing the largest share of emissions.

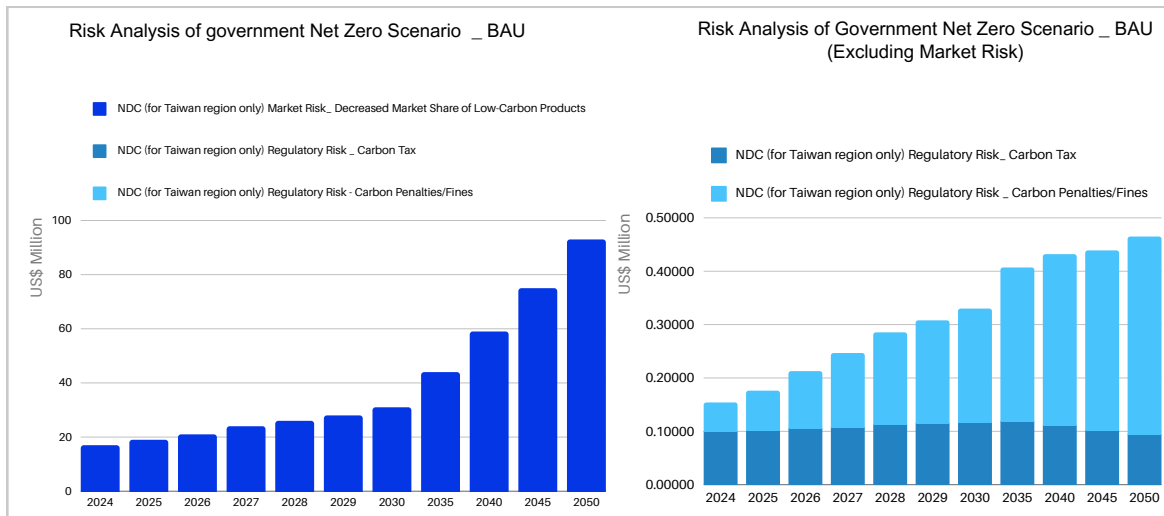


Achieve carbon emission limits for various scenarios and estimate the baseline greenhouse gas emissions

- The financial impacts under the existing Business-As-Usual (BAU) strategy (without considering RE strategies)

The financial impacts of Wiyynn Group's current BAU and projected emissions under different external transition scenarios are evaluated as follows:

Across all external scenarios, market risk is identified as the primary factor, indicating potential revenue losses if targets are not achieved. Regulatory risks are assessed as minimal. Even under the highest carbon tax scenarios, such as SSP1-1.9 or SBT-NZ, the financial impact is in the tens of millions of US dollars, with anticipated revenue losses due to market expectations being relatively higher.



Financial Impact of Government Net Zero Scenario Under BAU

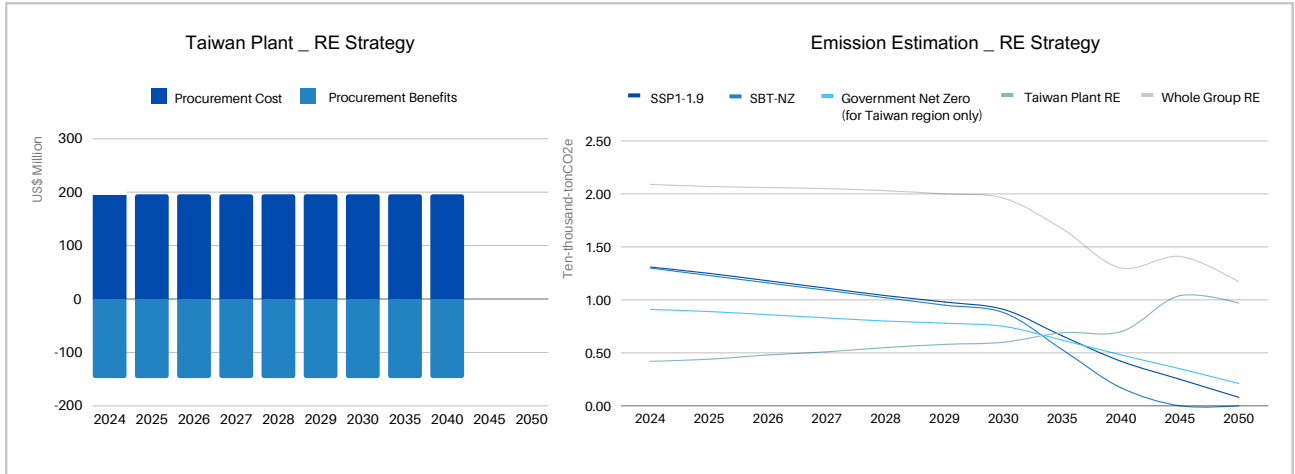




### 2.3.4 RE Strategy

Wiwynn has been introducing RE (Renewable Energy) strategies across its operational sites. In 2023, Taiwan region procured 3.13 million kWh of green energy. Subsequently, in Taiwan, the company expects an annual expenditure of approximately USD\$1.96 million for such procurement, avoiding more than USD\$1.48 million in costs from Taiwan Power Company procurement. The overall net cost is approximately USD\$480,000.

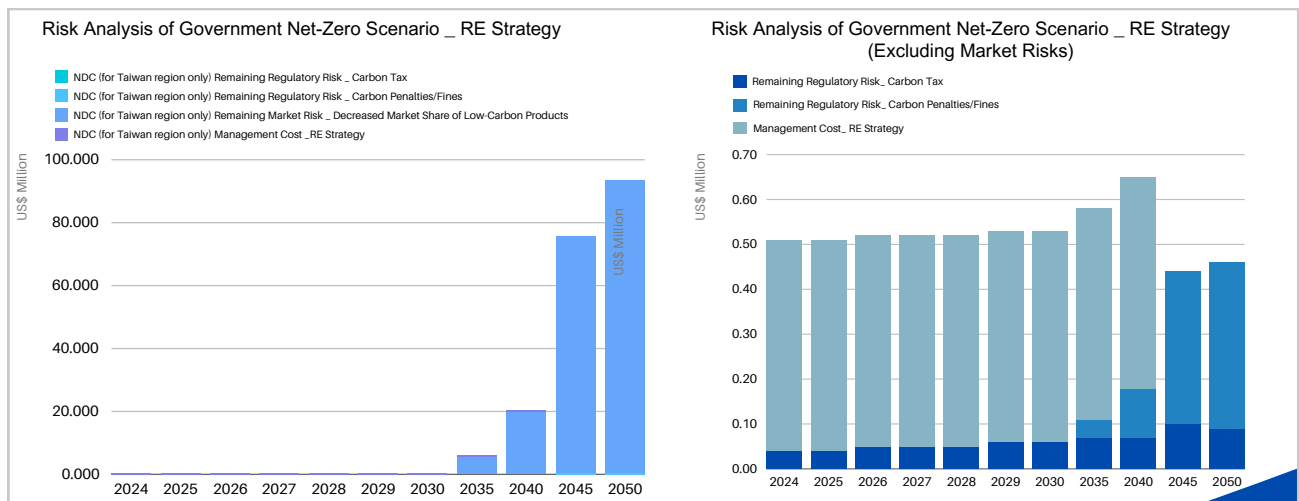
The emissions after achieving carbon emission quotas and RE strategies in each scenario



### 2.3.5 Financial Impact Analysis of the RE Strategy

Wiwynn's renewable energy (RE) strategy encounters varying transition risks across three transition scenarios due to different external conditions. Considering market risks, achieving government net-zero targets ensures the carbon reduction effect of the RE strategy meets goals before 2030, thereby minimizing market risks. However, as government net-zero targets become stricter, the original RE strategy may not suffice, leading to increased market risks. If market risks are excluded, approximately USD\$470,000 is attributed to management costs (renewable energy procurement, including acquisition costs and avoiding Taiwan Power Company's procurement benefits), with the remainder being carbon taxes and penalties. This underscores relatively minor market risks.

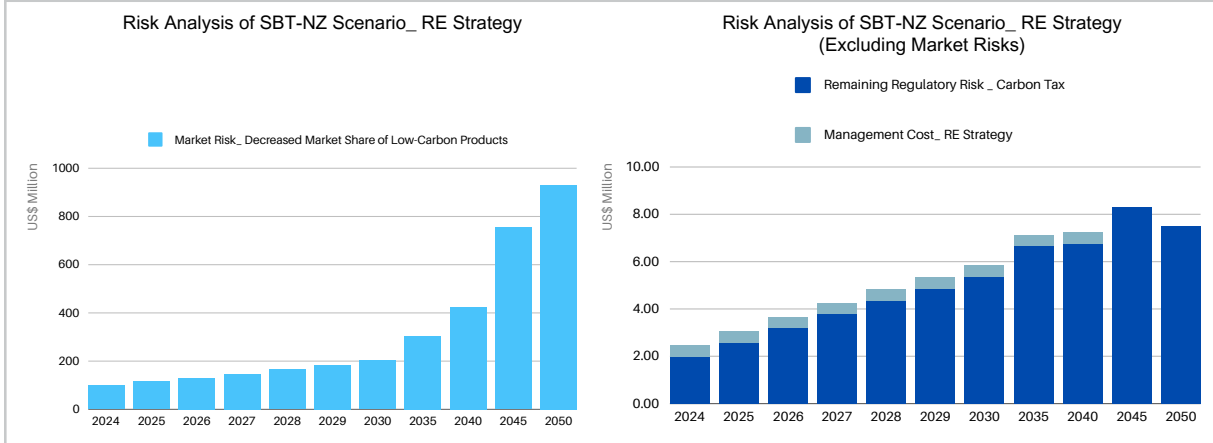
Financial Impact and Management Costs of Government Net-Zero Scenario with RE Strategy





The financial impacts of SSP1-1.9 and SBT-NZ are rather similar; therefore, we only analyze the SBT-NZ scenario, which also exhibits the highest market risk. When market risk is excluded, the primary financial impact stems from carbon taxes, potentially reaching up to millions in carbon taxes. In contrast, management costs of the RE strategy are relatively low, amounting to USD\$470,000.

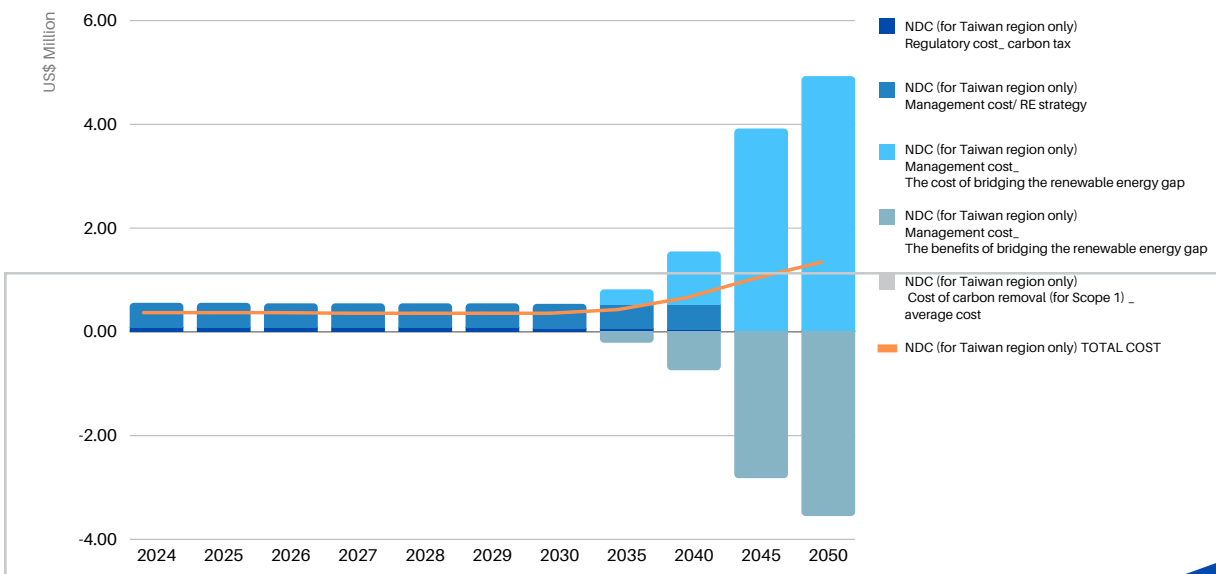
### Financial Impact and Management Costs of RE Strategy in the SBT-NZ Scenario



## 2.3.6 Management Cost Analysis for Achieving Transition Scenarios

To meet government net-zero targets, Wiwynn would incur higher procurement costs for renewable energy than under the original RE strategy but would pay lower carbon taxes. Ultimately, the cost would amount to approximately USD\$1.35 million (taking 2050 as an example, requiring USD\$4.9 million for renewable energy procurement but avoiding USD\$3.55 million in Taiwan Power Company procurement costs). Additionally, achieving government net-zero targets does not necessarily have to bear carbon removal costs. Consequently, there would be no additional financial impact from carbon penalties or market risks upon achieving government net-zero targets.

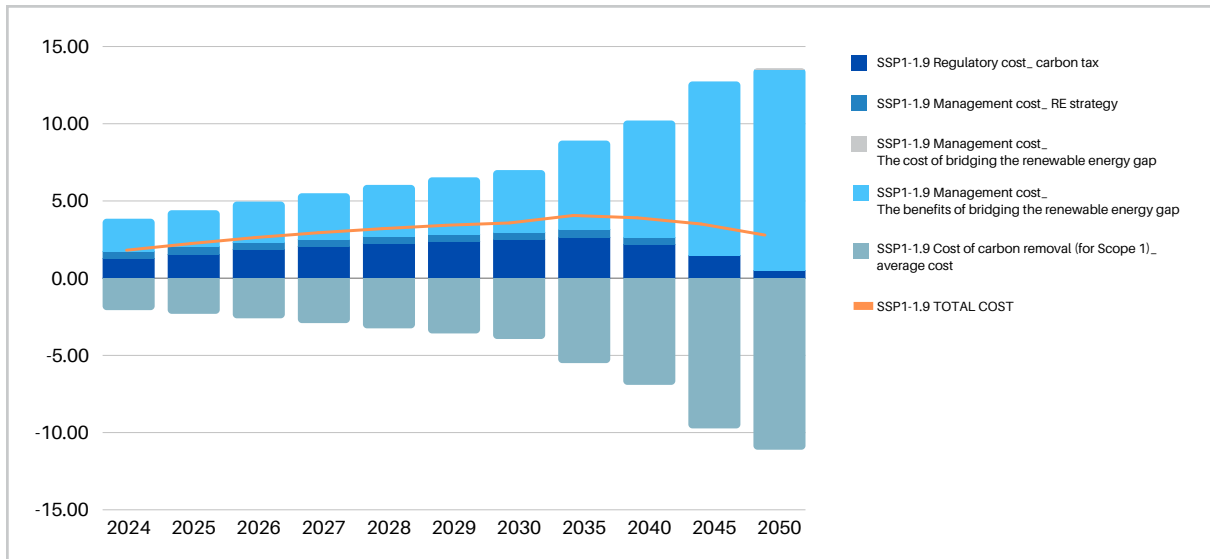
### Management Cost Analysis Under Government Net-Zero Targets





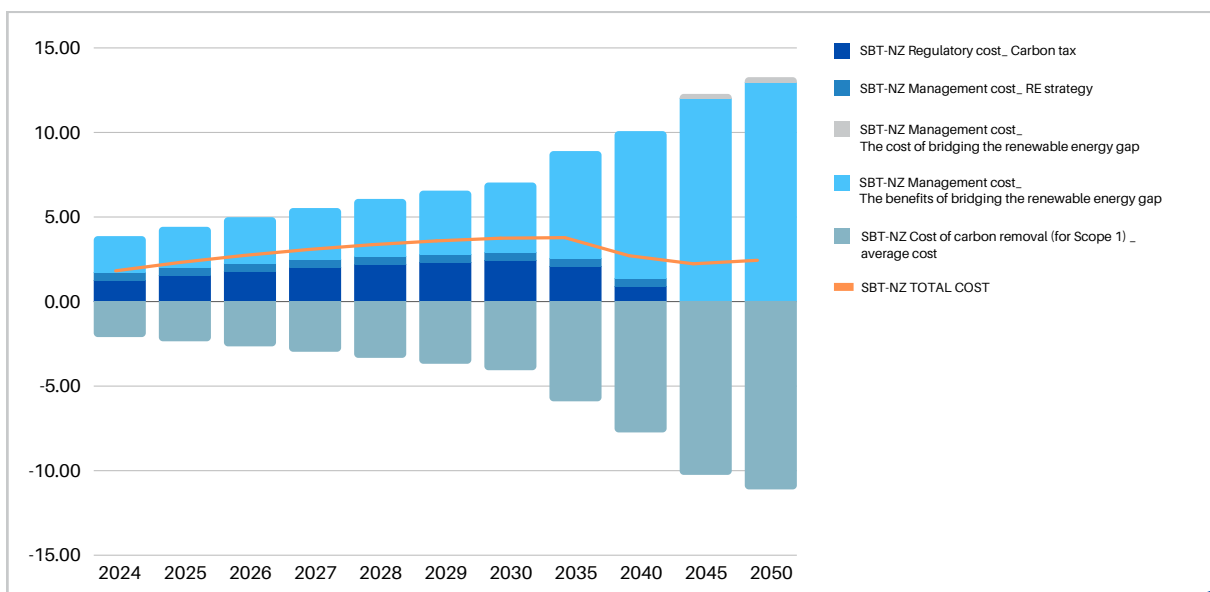
In order to achieve SSP1-1.9, The company still need to purchase additional renewable energy to meet the targets, making additional procurement costs for renewable energy the highest. Due to ongoing carbon emissions, the primary cost structure revolves around carbon taxes and purchasing renewable energy. Approaching 2050, achieving RE100 means that the Scope 1 emissions reductions to meet SSP1-1.9 goals can only be accomplished through carbon removal. However, lowering overseas renewable energy and electricity prices compared to local options ultimately result in cost-effective procurement abroad, leading to cost reductions for the Company.

### Management cost analysis to achieve SSP1-1.9



Achieving SBT-NZ involves similar financial impacts and management costs compared to SSP1-1.9, with the main difference being the requirement of achieving net-zero emissions earlier. Therefore, a greater need for purchasing additional renewable energy.

### Management Cost Analysis for Achieving SBT-NZ





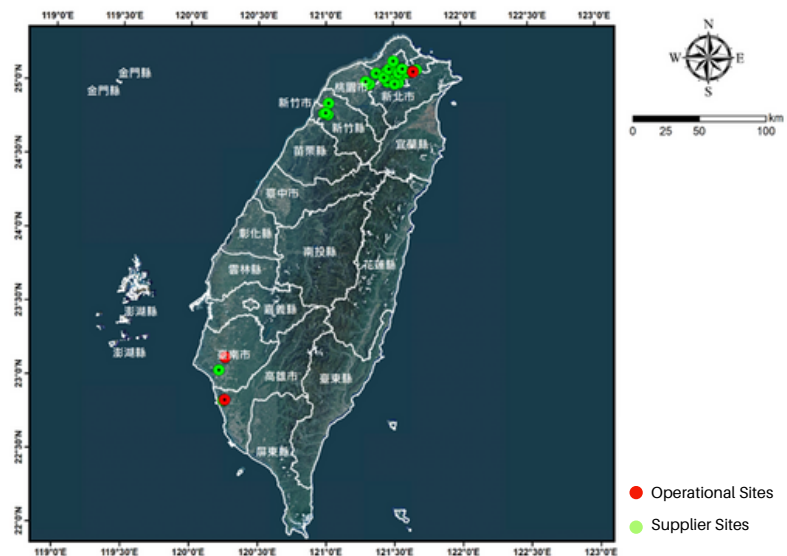
## 2.4 Physical Scenario Analysis

Climate-related physical risks consist of hazard, exposure, and vulnerability. According to the definition by the Intergovernmental Panel on Climate Change (IPCC), hazard represents the driving force behind climate-related events that may lead to damage and losses of assets. Exposure refers to the location and extent to which assets may suffer adverse impacts. Vulnerability encompasses adaptability and sensitivity, defining how susceptible assets are to disasters.

Based on the above definitions, quantifying hazard, exposure, and vulnerability allows for the estimation of physical risk levels. By classifying hazard, exposure, and vulnerability, risk levels can be calculated and serve as a crucial basis for determining adaptation priorities and strategies.

Wiwynn conducts quantitative analysis of physical risks at each site using extreme rainfall under climate change as hazard, and flooding, landslides, and debris flows triggered by extreme rainfall as vulnerability. Exposure is assessed based on the location of 45 operational sites and suppliers in Taiwan. For hazard assessment, multiple climate models (GCM/ESM) are used to simulate climate risks under four scenarios: RCP2.6, RCP4.5, RCP6.0, and RCP8.5, aiming to avoid outliers and extreme simulation results. Vulnerability is analyzed based on government-provided maps indicating disaster-prone areas and severity levels.

Finally, risks are classified into four levels: no risk, low risk, medium risk, and high risk. The overall risk level is represented by the highest risk level among the three dimensions of risk values.



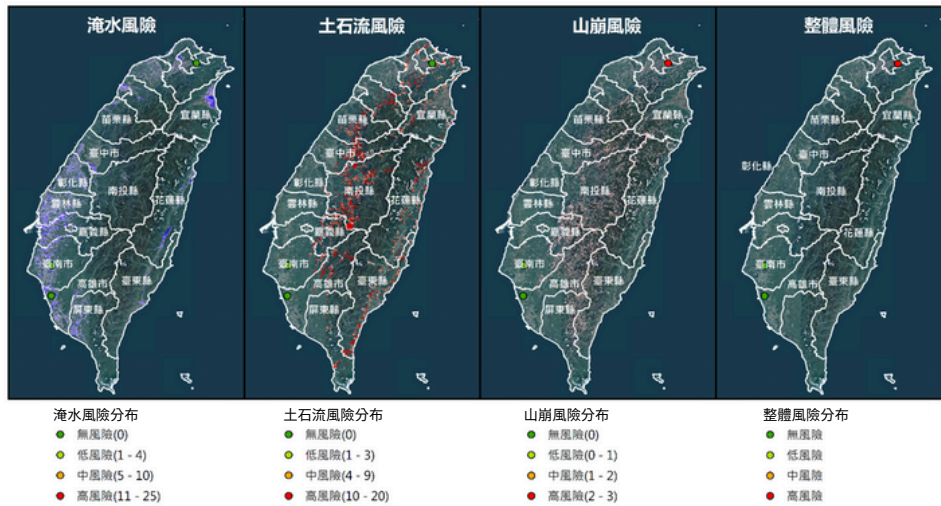


## 2.4.1 Analysis of Physical Risks at Wiyynn’s Operational Sites under RCP2.6, RCP4.5, RCP6.0, and RCP8.5 Scenarios

The analysis of physical risks at Wiyynn’s operational sites under the RCP2.6, RCP4.5, RCP6.0, and RCP8.5 scenarios reveals that out of 11 sites, one site is located near a geologically sensitive area prone to landslides, elevating its risk level to high. Measures such as slope stabilization and enhanced risk management should be implemented at this site to mitigate potential losses from disasters.

In contrast, the remaining 10 sites show no potential for flooding, debris flows, or landslides, thus classified as having no risk. Despite this classification, Wiyynn has implemented emergency plans and risk management measures at all sites. These include establishing emergency response protocols, such as evacuation plans and emergency supply readiness, to ensure the safety of employees and protect assets. Additionally, considerations are made to further enhance the water resistance of building structures and risk management systems to reduce future risks from happening and the potential losses.

### Analysis Results



Unit: Number of Wiyynn Operational Sites

Risk Levels	Response Measures	Analysis Results for RCP2.6, RCP4.5, RCP6.0, and RCP8.5 Scenarios			
		Short-term	Medium-term	Medium to Long-term	Long-term
No Risk	Maintain Site	10	10	10	10
Low Risk	Maintain Site	0	0	0	0
Medium Risk	Maintain Site and Enhance Monitoring of Disaster Potential Changes	0	0	0	0
High Risk	Non-essential site closure and relocation of operational sites to locations below medium risk	1	1	1	1
Total		11			

Note: Short-term, Medium-term, Medium to Long-term, Long-term respectively represent the periods from 2021-2040, 2041-2060, 2061-2080, and 2081-2100 AD.



## 2.4.2 Physical Risks' Adaptation Plan for Wiyynn Operational Sites



- **Annual Review:** Conduct annual disaster risk assessments for Wiyynn operational sites to achieve risk management objectives.
- **Emergency Plan:** Develop emergency response protocols, including evacuation plans and material salvage plans, to ensure the safety of employees and protection of assets.
- **Establish Risk Alert System:** Implement a risk alert system to promptly notify and implement corresponding measures during periods of high rainfall frequency.
- **Construct Flood Control System:** Study the geographical and hydrological conditions of the region and establish appropriate flood control systems to mitigate potential flooding impacts.
- **Enhance Building Water Resistance:** Strengthen the water resistance of office building structures to reduce damage from flooding.
- **Rebuild or Relocate Sites:** Consider rebuilding or relocating sites located in high-risk areas to avoid risks associated with hazardous locations.
- **Develop Sustainable Development Plans:** Consider developing sustainable development plans to minimize environmental impact, such as energy conservation, emission reduction, and recycling initiatives, ensuring long-term economic and environmental stability.

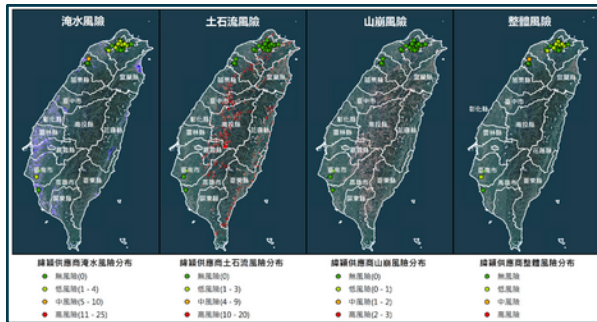


## 2.4.3 Physical Risks Analyses for Wiyynn Suppliers in RCP2.6, RCP4.5, RCP6.0, and RCP8.5 Scenarios

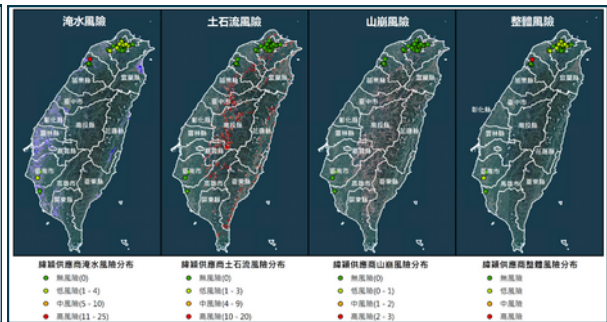
Wiyynn surveyed a total of 34 operational sites for its suppliers in the scenarios of RCP2.6, RCP4.5, RCP6.0, and RCP8.5: There are 10 sites with the potential of flooding. Among these, the number of sites classified as low risk ranges from 5 to 9, primarily located in Taipei City, New Taipei City, Taoyuan City, Hsinchu County, and Tainan City. These sites face risks such as short-duration intense rainfall over short to long-term, with relatively low potential risks. In contrast, there are fewer sites classified as medium risk, ranging from 0 to 5, mainly located in Taipei City, Taoyuan City, and Hsinchu County. There is 1 site classified as high risk, located in Hsinchu County. According to simulation using GCM/ESM models, under the RCP2.6 scenario and across medium to medium-long term, these areas may face higher probabilities of extreme rainfall. Therefore, rigorous risk assessment and disaster preventive measures are necessary to address potential extreme weather events in this region. The remaining 24 sites are classified as no risk. Wiyynn formulates corresponding response measures based on risk classifications and conducts annual reviews to continuously adjust and adapt to supplier risks.

### Analysis Results

In the RCP2.6 scenario, short-term risk levels for Wiyynn supplier sites



In the RCP4.5 scenario, short-term risk levels for Wiyynn supplier sites



Unit: Number of Supplier Operational Sites

Risk Levels	Response Measures	RCP2.6 Scenario				Risk Levels	Response Measures	RCP4.5 Scenario			
		Short-term	Medium-term	Medium to Long-term	Long-term			Short-term	Medium-term	Medium to Long-term	Long-term
No Risk	Normal Cooperation	24	24	24	24	No Risk	Normal Cooperation	24	24	24	24
Low Risk	Normal Cooperation	9	7	9	9	Low Risk	Normal Cooperation	9	8	5	8
Medium Risk	Normal Cooperation with Enhanced Monitoring of Hazard Trends	1	2	0	1	Medium Risk	Normal Cooperation with Enhanced Monitoring of Hazard Trends	0	2	5	2
High Risk	Depending on the nature of the industry, incorporate disaster risk-related provisions and penalty systems into contracts, prohibiting long-term project collaborations	0	1	1	0	High Risk	Depending on the nature of the industry, incorporate disaster risk-related provisions and penalty systems into contracts, prohibiting long-term project collaborations	1	0	0	0
Total		34				Total		34			

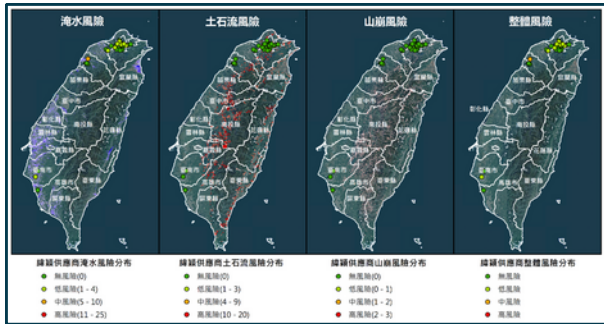
Note: Short-term, Medium-term, Medium to Long-term, Long-term respectively represent the periods from 2021-2040, 2041-2060, 2061-2080, and 2081-2100 AD.



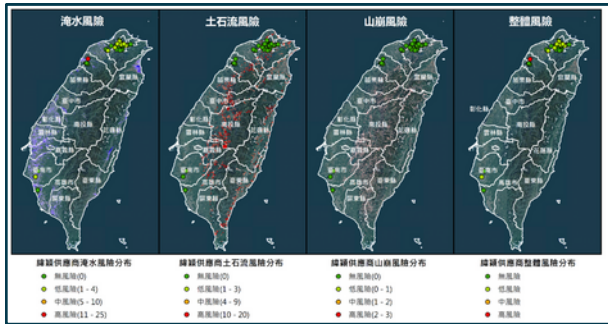


# Analysis Results

In the RCP6.0 scenario, short-term risk levels for Wiyynn supplier sites



In the RCP8.5 scenario, short-term risk levels for Wiyynn supplier sites



Unit: Number of Supplier Operational Sites

Risk Levels	Response Measures	RCP6.0 Scenario			
		Short-term	Medium-term	Medium to Long-term	Long-term
No Risk	Normal Cooperation	24	24	24	24
Low Risk	Normal Cooperation	9	9	8	7
Medium Risk	Normal Cooperation with Enhanced Monitoring of Hazard Trends	0	1	2	2
High Risk	Depending on the nature of the industry, incorporate disaster risk-related provisions and penalty systems into contracts, prohibiting long-term project collaborations	1	0	0	1
Total		34			

Risk Levels	Response Measures	RCP8.5 Scenario			
		Short-term	Medium-term	Medium to Long-term	Long-term
No Risk	Normal Cooperation	24	24	24	24
Low Risk	Normal Cooperation	8	8	7	7
Medium Risk	Normal Cooperation with Enhanced Monitoring of Hazard Trends	1	2	3	3
High Risk	Depending on the nature of the industry, incorporate disaster risk-related provisions and penalty systems into contracts, prohibiting long-term project collaborations	1	0	0	0
Total		34			

Note: Short-term, Medium-term, Medium to Long-term, Long-term respectively represent the periods from 2021-2040, 2041-2060, 2061-2080, and 2081-2100 AD.



## 2.4.4 Physical Risk Adaptation Plan for Wiyynn Supplier Sites



- **Annual Review:** Conduct annual disaster risk assessments for all Wiyynn suppliers to achieve risk management goals.
- **Emergency Plan:** Develop emergency response protocols, including evacuation plans and material salvage plans, to ensure the safety of employees and protection of assets.
- **Establish Risk Alert System:** Set up a risk alert system to promptly receive risk notifications and implement corresponding response measures when risks arise.
- **Evaluate Building Structures:** Assess the building structures and terrain of leased sites to understand their ability to withstand extreme weather events and undertake necessary reinforcement and adjustments.
- **Strengthen Supplies:** Enhance stockpiling to ensure basic needs of employees are met during extreme weather events.
- **Possible Relocations:** If the risk level of leased sites is too high and effective adaptation is not feasible, consider relocating to safer locations.
- **Expand Risk Management Plans:** Consider expanding risk management plans, including integrating risk management into lease agreements and coordinating with landlords to ensure feasibility and effectiveness of risk management measures.



### 3. Establish Performance Targets

Climate risk has become one of the significant risks highlighted in global risk assessment reports. The Office for Sustainable Development and operational units conduct climate issue collection, identification, and analysis at least once a year based on internal and external issues, industry benchmarks, and peer references. The Chief Strategy Officer and the President monitor climate strategy and management plan execution through regular monthly meetings, and the Chief Sustainability Officer then reports to the Corporate Sustainability Committee and the Board of Directors. The Board oversees climate issues, integrating such risks and opportunities into the overall risk considerations to supervise comprehensive risk management and ensure the effectiveness of the governance mechanisms.

In 2023, the Company adopted two long-term goals: achieving 100% renewable energy usage by 2030 and net-zero emissions by 2040. Several implementation plans have been initiated to enhance climate resilience, reduce operational risks, and capitalize on opportunities to create corporate value.

#### 3.1 Reduction Pathway Planning (SBT)

Verified and passed by the SBTi, the Company utilizes its carbon reduction pathways as indicators for estimating climate mitigation and adaptation efforts. Based on a 2021 baseline, annual absolute reductions of 2.5% in Scope 1+2 emissions are targeted, aiming for a 25% reduction by 2031. Scope 3 emissions are targeted to decrease by 12.3%.

##### Achievement of Scope 1+2 targets in 2023

Boundaries	Coverage	Reduction Target	Actual Reduction in 2023	Achievement Rate
Taiwan	34.10%	4,158.78	1,547.70	37.20%
Global	100%	17,366,14	15,881.95	91.45%

##### Net Zero Emission Plan

Classification	%	Execution Results
Scope 1+2	0.5%	Local regulatory compliance and resource planning for renewable energy procurement at each operational site have resulted in a renewable energy usage of 57.07% in 2023.
Scope 3	99.5%	In Scope 3 emissions, 83% is attributed to "use of sold products," followed by 15% from "purchased goods and services," with the remaining 2% from other sources. Through collaborative carbon reduction initiatives with upstream and downstream partners in 2022 and 2023, Scope 3 emissions were reduced by 1,793,008.64 tons CO <sub>2</sub> e and 5,137,432.39 tons CO <sub>2</sub> e respectively.



## Greenhouse gas emission management

“Environmentally friendly operation” is one of the strategies for sustainable development established by Wiyynn. We are devoted to integrate awareness of sustainability with daily operation and have introduced IECQ QC0 80000:2017 (Hazardous Substance Process Management System), ISO14001:2015 (Environmental Management System), ISO 14064-1:2018 (Greenhouse Gas Inventory Management System), and ISO 50001:2018 (Energy Management System). Besides, we referred to GHG protocol and followed ISO 14064-1:2018 to conduct the verification of the greenhouse gas inventory, as well as setting up organizational boundary by the right of business control. Our coverage rate of data collection achieved 100%.

Along with the booming development in the industry, Wiyynn continues expanding our operational boundaries over the recent years. In 2023, we had a new plant in Malaysia; therefore, the total emissions increased from that in the previous year. However, to connect to the international carbon reduction pathway and achieve the goals of carbon reduction step by step, the Company took the initiative to arrange green power procurement. Followed the completion of green power wheeling at Taipei Business HQ in 2022, we also introduced green power to Tainan Plant in 2023. Global operating sites enhanced the utilization rate of green power through installation of rooftop solar panels and purchasing consolidated renewable energy certificate.

In 2023, Scope 1+2 market base emissions reduced 4,106.0533 tons CO<sub>2</sub>e compared to that in 2022 and achieved 20.17% reduction. The global utilization rate of renewable energy was 57.07%, increased by 29.34% compared to that in 2022.

### Statistics of greenhouse gas emissions 2020-2023 (Scope 1+2)

Greenhouse gas emissions (tons CO<sub>2</sub>e)

Scope		2020	2021	2022	2023
Scope 1	Stationary combustion	0	187.4227	845.9931	796.7894
	Mobile combustion	16.8122	139.8305	183.1985	202.1823
	Manufacturing emissions	0	0	0	0
	Fugitive emissions	27.2657	33.8733	157.4392	2,273.5810
Subtotal		44.0779	361.1265	1,186.6308	3,272.5527
Scope 2	Location-based	5,913.0248	14,785.6430	25,961.5777	28,860.4916
	Market-based	0	0	19,170.5147	12,978.5396
Total (Scope 1+2)	Location-based	5,957.1027	15,146.7695	27,148.2085	32,133.0443
	Market-based	0	0	20,357.1455	16,251.0923
Emissions per unit revenue (tons CO <sub>2</sub> e/ NTD 100 million)	Location-based	3.19	7.86	9.27	13.28
	Market-based	0	0	6.95	6.72

- Note 1 : GWP value follows AR6 report. In Taiwan, Scope 1 adopted greenhouse gas emission coefficient management table, Edition 6.0.4. All other areas adopted IPCC and heating values published by the local energy agencies.
- Note 2 : Carbon Emission Factors for Energy in Different Regions

Regions	Carbon Emission Factors (kgCO <sub>2</sub> e)
Taiwan	0.494
Malaysia	0.550
U.S.A.	0.376
Mexico	0.438

- Note 3 : The subsidiary in Mexico, Wiyynn Mexico, S.A. de C.V. (WYMX) expanded its operational function in the second half of 2021 to production and manufacturing. The statistical data started in the second half of the year. It was the result of self-inventory without being verified by a third-party institution.
- Note 4 : In 2023, we included greenhouse gas emissions from all subsidiaries listed in the consolidated statements, including the new plant in Malaysia began operational in 2023.



## Types of Scope 1 Greenhouse Gas Emission

Unit: tons CO<sub>2</sub>e

	2020	2021	2022	
CO <sub>2</sub>	16.1463	323.5978	(Note) 976.6789	948.2635
CH <sub>4</sub>	0.1624	2.2605	41.0140	39.1965
N <sub>2</sub> O	0.5035	1.3949	12.3222	11.8488
NF <sub>3</sub>	0	0	0	0
HFC	27.2657	33.8733	156.6157	551.3128
PFC	0	0	0	0
SF <sub>6</sub>	0	0	0	1,721.9311
<b>Total</b>	<b>44.0779</b>	<b>361.1265</b>	<b>1,186.6308</b>	<b>3,272.5527</b>

Note: Correction of numbers

## Adjustment of emission boundaries

The subsidiary in Mexico (WYMX) was established on February 14, 2019. Originally, its production capacity was from outsourcing. In the second half of 2021, it was expanded to an operational site with production and manufacturing capacity. To ensure emission data is comparable, the data of emissions between 2020 and 2021 was adjusted using the method of economic allocation. From 2022, green power procurement helped significant reducing emissions per unit revenue.

Unit: tons CO<sub>2</sub>e

Scope		2020	2021	2022	2023
Scope 1		1,127.6788	1,115.9605	1,186.6308	3,272.5527
Scope 2	Location-based	17,464.5190	23,581.8583	25,961.5777	28,860.4916
	Market-based	-	-	19,170.5147	12,978.5396
Total (Scope 1+2)	Location-based	18,592.1978	24,697.8188	27,148.2085	32,133.0443
	Market-based	-	-	20,357.1455	16,251.0923
Emissions per unit revenue (tons CO <sub>2</sub> e/ NTD 100 million)	Location-based	9.95	12.82	9.27	13.28
	Market-based	-	-	6.95	6.72

## Renewable energy on record 2020-2023

Unit: kWh

	2022	2023
Renewable energy certificate (including PPA and REC)	15,961,000	35,508,000



## Statistics of greenhouse gas emissions over the years (Scope 3)

Unit: tons CO<sub>2</sub>e

Category	2020	2021	2022	2023
Purchased products and services	14.95	1,848,446.65	1,408,286.77	972,236.09
Capital goods	-	4,306.39	133,171.11	42,533.00
Fuel and energy related activities	1,266.25	1,306.64	1,656.48	4,927.27
Upstream transportation and distribution	-	393.96	1,084.20	15,171.43
Waste generated in operations	17.18	8.25	3.63	57.08
Business travel	30.84	13.36	144.34	743.78
Employee commuting	-	3,433.37	5,335.03	(Note 2)
Upstream leased assets	-	(Note3)	(Note3)	(Note3)
Downstream transportation and distribution	-	13,115.94	5,735.47	44,104.09
Processing of sold products	-	1,526.51	1,769.36	(Note2)
Use of sold products	-	2,310,467.87	4,381,640.92	5,342,771.10
End of life treatment of sold products	-	13,093.07	21,016.04	19,036.2
Downstream leased assets	-	(Note4)	(Note4)	(Note4)
Franchises	-	(Note4)	(Note4)	(Note4)
Investments	-	91.01	238.94	45.83
<b>Total</b>	<b>1,329.22</b>	<b>4,196,203.02</b>	<b>5,960,082.29(Note5)</b>	<b>6,441,625.88</b>

- Note 1 : Some of the items were not listed for verification, or the scopes of verification were not completed from 2020 to 2022, including: "Purchased goods and services", "Capital goods", "Fuel and energy related activities", "Upstream transportation and distributions", "Employees commuting", "Downstream transportation and distributions", "Processing of sold products", "Use of sold products", "End-of-life treatment of sold products", and "Investments".
- Note 2 : In 2023, "Employees commuting" was not included in the calculations.
- Note 3 : It has already been included in Scope 1 and Scope 2.
- Note 4 : There were no relevant operating activities.
- Note 5 : In 2022, the total emission did not deduct removal.

Scope 3 emissions are calculated using the GHG Protocol methodology, based on activity data (see note) and verified by third-party validation and agreed-upon procedures. To achieve net-zero emissions by 2040, Wiyynn continues to engage in carbon reduction initiatives with upstream and downstream partners, promoting greenhouse gas verification and encouraging the purchase of renewable energy. In 2022 and 2023, Scope 3 emissions were reduced by 1,793,008.64 tons CO<sub>2</sub>e and 5,137,432.39 tons CO<sub>2</sub>e respectively, mainly due to the successful downstream RE strategy implementation, leading to the significant emission reductions.

Note: Activity data sources include primary data (originating from actual inventory records) and secondary data (derived from relevant figures, Simapro databases, or estimations).

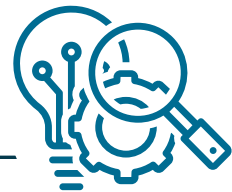


## 3.2 Enhancing Mitigation and Adaptation Capabilities

To strengthen climate mitigation and adaptation capabilities, Wiyynn set two long-term goals in 2023: 100% renewable energy usage by 2030, and net-zero emissions by 2040. Based on local regulations and resource planning for each operational site, the renewable energy usage rate reached 57.07% in 2023. To continue increasing the rate and achieve net-zero emissions by 2040, senior executives (including the President and those report to the President directly) must set key performance indicators (KPIs) directly related to ESG strategies, accounting for at least 10% of their assessments. This effectively links individual performance with compensation, motivating and enhancing goal execution. Monthly Objective Key Results (OKRs) meetings are conducted to track the results, incorporating carbon reduction management from product development, manufacturing, and usage to disposal, aiming to achieve the 100% renewable energy usage by 2030 and net-zero emissions by 2040.

### Product Development and Design

Since 2020, we have been continuously incorporating recycled plastics and packaging materials, and in 2023, we increased the use of recycled steel. It is estimated that the use of recycled materials and paper packaging has reduced emissions by 2,490 tons CO<sub>2</sub>e, representing approximately a four times increase in carbon reduction compared to the previous year.



### Product Manufacturing

Establishing new global PCBAs production lines for low-power consumption, and gradually reduce the idle power consumption of rack testing.



### Product Usage

We continue to explore various thermal management solutions and enhance overall board-level power conversion efficiency to  $\geq 91\%$  through circuit board design and circuit integration, and effectively reducing total system power consumption. The carbon reduction benefits of two of our sold products have been calculated. Their operation throughout product life cycles can bring downstream customers an energy-saving benefit of 8,080,383 kWh, equivalent to reducing emissions by 3,992 tons CO<sub>2</sub>e.



### End-of-Life Product Recycling

We collaborate with customers to recycle and reuse DRAMs in good condition. Through the end-of-life recycling and reuse of DRAMs in servers, it is estimated that in 2023, the emissions reduced by approximately 158 tons CO<sub>2</sub>e, realizing circular economy principles and creating positive environmental impacts.







## 4. Supply Chain Management

Global attention to climate issues has expanded the focus on carbon reduction from supply chains to every enterprise. To effectively integrate the impacts considered in our operational strategies into supply chain management and fulfill our sustainable supply chain policies and commitments, we launched a Sustainable Supply Chain Platform in 2023. This platform enables a two-way online communication with our supplier, and facilitates meetings where we communicated our three-year carbon reduction plan for the supply chain, spanning from 2023 to 2025:

- Promoting ISO 14064-1:2018
- Enhancing cooperations in green materials
- Encouraging renewable energy procurement

We utilized the Sustainable Supply Chain Platform to collect carbon emission data from the supply chain partners, promoting suppliers to obtain ISO 14064-1:2018 certification to establish complete and reliable carbon emission management data. In product development, to achieve sustainable development and our environmental commitments, we enhance the supply capacity of green materials from suppliers, collaborate with them on the development of recycled materials, and work together to gain an edge in a highly competitive market. This not only creates a win-win situation in operations, but also adds greater value to the environment and society. Furthermore, we encourage suppliers to procure renewable energy and implement carbon reduction management in their manufacturing processes, jointly striving to achieve Wiwynn's goal of net-zero emissions by 2040.



## 5. Vision

Wiwynn Corporation's vision is "Unleash the Power of Digitalization, Ignite the Innovation of Sustainability," continuously advancing towards sustainable operations and common goods with the society and the environment. In addition to our ongoing efforts in business development and corporate governance, we established four ESG strategies in 2023: "Eco-friendly operation," "Driven people with shared beliefs," "Sustainable Supply Chain," and "Innovation with green technology." Under the "Eco-friendly operation" perspective, we set two long-term goals: 100% renewable energy usage by 2030 and net-zero emissions by 2040. We are committed to actively addressing the risks posed by climate change and seizing opportunities in the transition to a low-carbon economy. By effectively allocating resources, we aim to enhance our competitiveness and operational resilience. Facing the rapid evolution of technology and the uncertainties of the overall environment, we will continue to innovate and to ensure that while driving digital development, environmental sustainability is also included, and to care for and benefit the society and the environment altogether.



# 6. Appendix

## TCFD Disclosure Index

Governance		
Describe the board of directors' oversight of climate-related risks and opportunities.	1.1 Climate Governance Organization	05
Describe management's role in assessing and managing of climate-related risks and opportunities.	1.2 Senior Management Responsibility	05
Strategy		
Describe the climate-related risks and opportunities the organization has identified over the short, medium, and long term.	2.2 Determining Significant Impacts	06
Describe the impact of climate-related risks and opportunities on the organization's businesses, strategy, and financial planning.	2.2 Determining Significant Impacts	06
Describe the resilience of the organization's strategy, taking into consideration different climate-related scenarios, including a 2°C or lower scenario.	2.3 Transition Scenario Analysis 2.4 Physical Scenario Analysis	09 18
Risk management		
Describe the organization's processes for identifying and assessing climate-related risks.	2.1 Raising Climate Awareness	06
Describe the organization's processes for managing climate-related risks.	1.1 Climate Governance Organization	05
Describe how processes for identifying, assessing, and managing climate-related risks are integrated into the organization's overall risk management.	1.1 Climate Governance Organization	05
Metrics and targets		
Disclose the metrics used by the organization to assess climate-related risks and opportunities in line with its strategy and risk management process.	3.1 Reduction Pathway Planning (SBT)	24
Disclose Scope 1, Scope 2, and, if appropriate, Scope 3 greenhouse gas (GHG) emissions, and the related risks.	3.1 Reduction Pathway Planning (SBT)	24
Describe the targets used by the organization to manage climate-related risks and opportunities and performance against targets.	3.2 Enhancing Mitigation and Adaptation Capabilities	28