南亞電路板股份有限公司
Nan Ya PCB Co., Ltd.

2024

ENVIRONMENT SOCIAL GOVERNANCE REPORT

CONTENTS

Appendix

1 Sustainable NYPCB

2 Corporate Governance

3 Environmental Friendliness

4 Employee Care

5 Social Contribution

About this Report

Overview

Nan Ya Printed Circuit Board Corporation (hereinafter referred to as the Company or NYPCB) publishes an ESG report every year to communicate with stakeholders regarding the Company's sustainable development. This report is the 13th ESG report that NYPCB has published. The report is published on June 2025, which includes the company' s profile, governance, environmental friendly, employee wellness programs, and social welfare information. NYPCB will regularly publish sustainability reports. The previous edition was issued in June 2024, and the next edition is scheduled for release in June 2026.

Scope and Boundary of the Report

The scope of content covers primarily the Taiwan facilities of NYPCB, including the Jingshin Plant (No. 338, Sec 1, Nankan Rd, Luchu District, Taoyuan City, covering Plant 1, Plant 2,Plant 5, and Plant 6) and the Shulin Plant (No. 57, Weiwang St, Shulin Dist, New Taipei City, Shulin Plant). Any information disclosed outside of this scope will be separately explained in the respective chapter. The data cited in the 2024 Sustainability Report and the boundaries of the report are inconsistent with the consolidated financial statements, but are consistent with the Climate-Related Financial Disclosures Report.

The data and statistics disclosed in this report are derived from the self-conducted statistics and surveys of the company. The financial data reporting period is from January 1, 2024, to December 31, 2024.The financial data has been audited by certified public accountants and publicly announced in accordance with the law. Some data are sourced from publicly available information on government agency websites and are presented using internationally recognized indicators. The data is presented in commonly used formats, with textual and numerical descriptions. Any exceptions will be specifically noted in the report.

Company Name	Commercial Locations
NYPCB (parent company)	• Headquarters • Production base：Jingshin Plant、Shulin Plant

Write Summary

Issuing Organization	Standards Framework/Regulations
Global Sustainability Standards Board, GSSB	• GRI Universal Standards 2021 • GRI Topic Standards 2016、2018 & 2020
International Financial Reporting Standards Foundation, IFRS Foundation	IFRS S1 General Requirements for Disclosure of Sustainability-related Financial Information Disclosures
	IFRS S2 Climate-related Disclosures
	Sustainability Accounting Standards Board, SASB Hardware
Taiwan Stock Exchange	• Regulations for the Preparation and Filing of Sustainability Reports by Listed Companies • Corporate Environmental, Social, and Governance (ESG) Information Disclosure and Reporting Procedures
AccountAbility	AA1000 The principles of accountability standards: materiality, inclusiveness, responsiveness, and impact.
UN	UN Sustainable Development Goals, SDGs

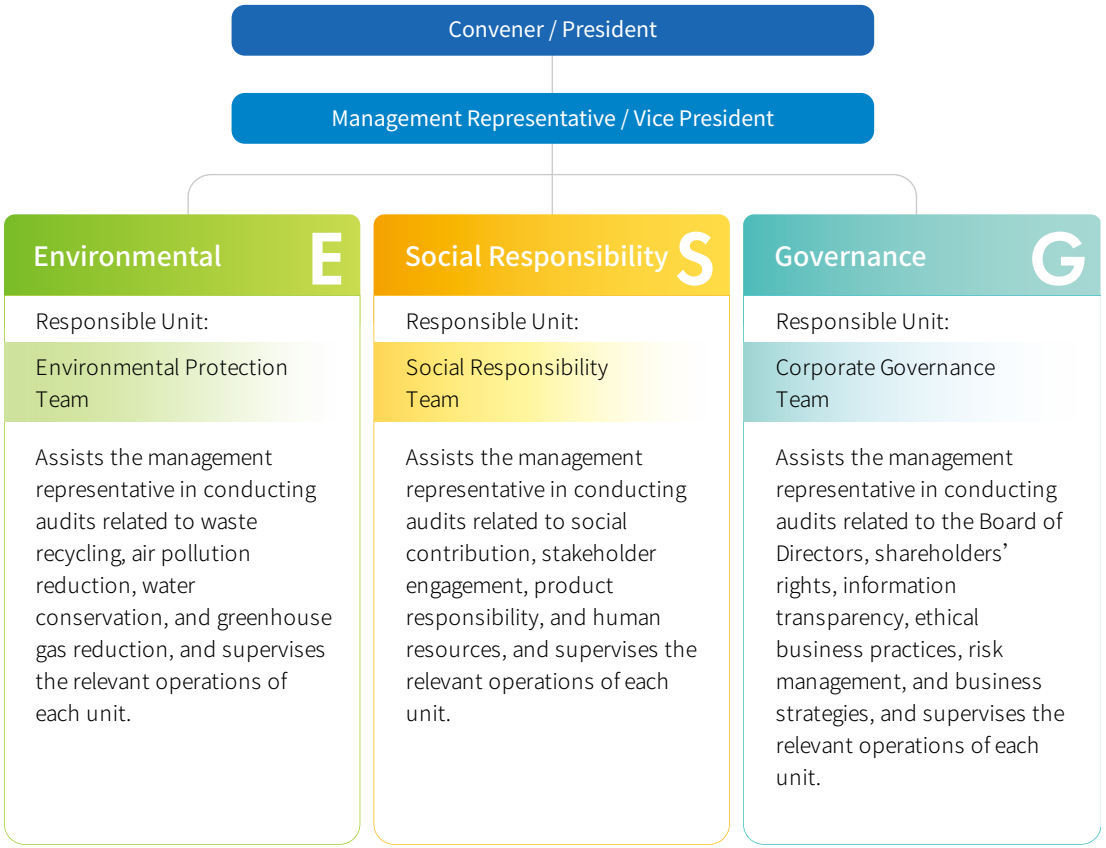
Consolidated Financial Report
Climate-Related Financial Disclosure Report

External Verification

This Report has been verified by an independent third party certification, BSI Group. According to the standards AA1000AS refers to the first type of assurance, it underwent an independent verification for the first application type, meeting the disclosure requirements of GRI sustainability guidelines. An independent assurance statement issued by the BSI is presented using internationally recognized indicators. Any estimations are noted in the relevant sections.

Item	Standards	Verification Agency
Sustainability Report	AA1000AS v3 Type 1	BSI
Financial Management	Audit verification of financial statements rules and generally accepted auditing standards.	KPMG in Taiwan (KPMG International Inc)
Business and Customer Management	ISO 9001：2015	DQS Taiwan Inc
Environmental Management	ISO 14001：2015	SGS Taiwan Inc
Greenhouse Gas Inventory	ISO 14064-1：2018	BSI SGS Taiwan Inc
Occupational Health and Safety Management	ISO 45001：2018	SGS Taiwan Inc

ESG Organization



Report management and information preparation process

To integrate and promote ESG, NYPCB has established a "ESG Team," (hereinafter referred to as " the team") in 2012, In response to the global ESG development trend, and to actively implement and regularly promote ESG initiatives with President Ann-De, Tang is the chief convener and Vice President Lien-Jui Lu is the Management Representative. The team is responsible for the strategic planning, monitoring, and evaluation of the Company’ s performance in terms of ESG. The organizational chart is as above.

Through the "ESG Organization," we review and verify the relevant data in the report to ensure compliance with integrity and transparency principles. We establish annual audit procedures and undergo third-party verification to ensure the quality of the report. It will be finalized and released after approval by the Sustainability Development Committee and the Board of Directors.

	September 2024 - December 2024 Internal Audit	February 2025 - April 2025 Internal Audit	March 2025 - May 2025 External Verification	August 2025 Internal Audi
Execution Process	• Establishment of Material Topics and Initiation Meeting for Sustainability Report Preparation	• Functional Units Submit and Collect Information • General Manager's Office Consolidates Sustainability Report Data • ESG Promotion Organization Review by Subgroups	• Third-Party International Agency Verification • Submission for Approval by the Sustainability Development Committee and Board of Directors	• Filing with the Market Observation Post System (MOPS)
Executing	• ESG Promotion Organization	• Functional Group • President Manager's Office • ESG Promotion Organization	• Third-Party Verification Agency • Sustainability Development Committee and Board of Directors	• President Manager's Office

Contact Information

Please contact us through the following channels if you have any suggestions or questions.

Nan Ya Printed Circuit Board Corporation
Investor Relations Unit of the President’ s Office,
NYPCB Mr. Kurt Yang

- Tel：+886-3-3223751 ext.1016
- E-Mail：kurtyang@nanyapcb.com.tw
- Website：http://www.nanyapcb.com.tw

Message from the President Manager

I. Corporate Governance

1. Upholding the business philosophy of "Diligence, Simplicity, and Striving for Excellence," we aim to deepen corporate governance and achieve the goal of sustainable business operations.
2. We have established ethical conduct standards, developed effective corporate governance and risk control mechanisms, assessed the risks of dishonest behavior, and implemented corresponding preventive measures. In addition, we ensure the implementation of an integrity-driven business policy through rigorous auditing processes.
3. By innovating and developing high-value products, we maintain stable supply and demand relationships with customers and suppliers. We also collaborate with customers on joint research and development efforts to enhance competitiveness and maximize shareholder value.

II. Environmental Protection

1. We continuously improve our production processes with the goal of energy saving and carbon reduction.
2. We have implemented lead-free processes in compliance with the European Union's RoHS Directive on hazardous substances in electrical and electronic products.
3. Climate change poses significant financial risks and opportunities for our organization. It may lead to extreme weather events, including rising average temperatures and prolonged droughts, which could result in power and water shortages. Therefore, we are committed to ongoing energy and water conservation initiatives to reduce resource and energy consumption. By enhancing environmental friendliness in our production processes, we aim to improve industry competitiveness and achieve multiple benefits.

III. Procurement Policy

1. We procure green and energy-efficient raw materials and supplies, setting internal standards to reduce resource consumption and increase recycling and reuse.
2. We strengthen the inspection of raw material supplies to prevent conflict materials from entering the production process.

IV. Labor and Ethics

1. We provide a healthy and safe working environment for employees, along with effective training programs and systems. This allows employees to follow clear goals, unlocking their personal talent and potential.
2. We comply with legal and business ethics regulations, establishing sound corporate systems to maintain good corporate governance.
3. We operate the business with the spirit of striving for excellence, continuously improving and enhancing competitiveness, while giving back to society and contributing to its prosperity.

V. Social Welfare

Through the integration of related efforts within Formosa Plastics Group, we are committed to the spirit of "Taking from society, giving back to society." We pledge to make regular and long-term contributions to social welfare initiatives. Each year, we assess their impact and gradually expand their influence based on local needs, in order to realize the vision of sustainable development and mutual prosperity.

Nan Ya Printed Circuit Board Corporation
President

Tang Ann-De

ESG Performance and Highlights

As a member of the Formosa Plastics Group (FPG) adhering to the corporate spirit,The determination to face and resolve issues, fulfill social commitments, and receive recognition from the government and private organizations are all driving forces that motivate NYPCB to practice lean management and prioritize environmental conservation. For information on the company's past awards and certifications, please refer to the "Awards and Certifications" section on our official website.

Awards and Certification

2024 NYPCB ESG Highlight

11th Corporate Governance Evaluation Ranking
6~20%

Continued Inclusion in the
Taiwan Sustainability Index

Customer Satisfaction Overall Score
A or above

The Information Security Management System has been certified for
ISO 27001.

2024 CDP Climate Change Rating:
A Leadership Level

2024 CDP Water Security Rating:
A Leadership Level

2024 UL 2799 Zero Waste to Landfill:
Gold

2024 Corporate Sustainability Report
Silver Award from the Taiwan Sustainability Energy Foundation (TCSA)

2024 Green Procurement:
Excellence in Performance Award from the Taoyuan City Government

2024 Silver Award for Happiness in Technology/Energy R&D Companies
from 1111 Job Bank

1

chapter

Sustainable NYPCB

Vision

NYPCB adheres to the core value of " Diligence, Perseverance, Frugality and Trustworthiness " Through communication and engagement with stakeholders,we analyze the industry landscape from a macro perspective, evaluate future operational directions, and devise corresponding action plans. We are committed to aligning with various international standards and actively integrating sustainable development strategies with our core business, thus continuously expanding our market presence in the industry.

Policy and Commitment

NYPCB is committed to sustainable development as its core value, aiming to balance company growth with safeguarding the interests of all stakeholders. Therefore, we continuously enhance our corporate governance performance, providing timely and transparent information to shareholders/investors. We also pledge to engage in regular dedicated communication and annually reviewthe effectiveness of engagement while integrating feedback. Moreover, we actively pursue green investments and innovative transformation, demonstrating our firm determination towards sustainable business goals.

Material Topics

Operational and Financial Performance

Framework & Indicator • GRI 201 Economic Performance • Specific Target 8.1

Definition NYPCB's financial performance, financial impact due to climate change, salary and benefits, and financial subsidies from the government.

Management Action	2024 Action performance tracking	Achieve Overview	Short-term target	Medium,and long-term target
By reducing the debt ratio and maintaining an appropriate liquidity level, we ensure a stable financial structure.	Issuance of quarterly and annual financial reports reviewed or audited by certified accountants.	Achieved	Quarterly and annual financial reports reviewed or audited by certified accountants are issued.	Ensure compliance with regulatory requirements in all company operations and continuously strengthen corporate governance. Timely disclosure of important company information to safeguard shareholder rights.
We are driving the adoption of Industry 4.0 and implementing AI (Artificial Intelligence) in production to reduce operational and manufacturing costs, and enhance the company's competitiveness.	Committed to investing in high-end servers and AI-related application products. Regular review of 2024 performance execution effectiveness, including monthly, quarterly, and annual operational performance reviews, assessment, and improvement of the operational status of each department.	Achieved	Continued investment in AI manufacturing projects.	Consistent investment in AI manufacturing projects.
We are committed to innovative research and development of forward-looking and high-value-added products and process technologies. We are also expanding our customer base in different regions to enhance profitability and diversify market concentration.	Regular review of 2024 performance execution effectiveness, including monthly, quarterly, and annual operational performance reviews, assessment, and improvement of the operational status of each department. The management oversaw the operation situation at all times to enhance performance.	Achieved	Proactively expanding into new markets and laying the groundwork early.	Actively exploring markets and planning ahead.

Stakeholder Engagement	Negotiation channels	Negotiation results
Investors/Corporate Assets	Disclose the investor contact window on the company's official website to maintain smooth and transparent communication channels.	• In 2024, we held earning calls and participated in investment forums to communicate with investors, a total of 4, and publish the audio and video files of earnings call. • Regularly publish the company's performance in Chinese and English content and material information on the Market Observation Post System, with total of 23 articles, in order to help domestic and foreign investors understand the company's operations. • Distributed cash dividend of NT$1 per share.
Employees	Based on the company's operating performance and other indicators, we will issue annual bonuses to employees and formulate annual salary increases, regardless of gender, to reward employees for their excellent performance and share operating results with them.	In January 2024, a annual bonus equivalent to 5.1 months base salary has been paid, and salaries has been increased by 3% in July.
Media	The company discloses investor relations contact information on the official website to ensure open and transparent communication channels.	Provide internal and external appealing channels to help stakeholders respond their queries at the first place
Communities	The company provides both internal and external grievance mechanisms to ensure that stakeholders can raise concerns appropriately and confidentially.	Provide internal and external appealing channels to help stakeholders respond their queries at the first place

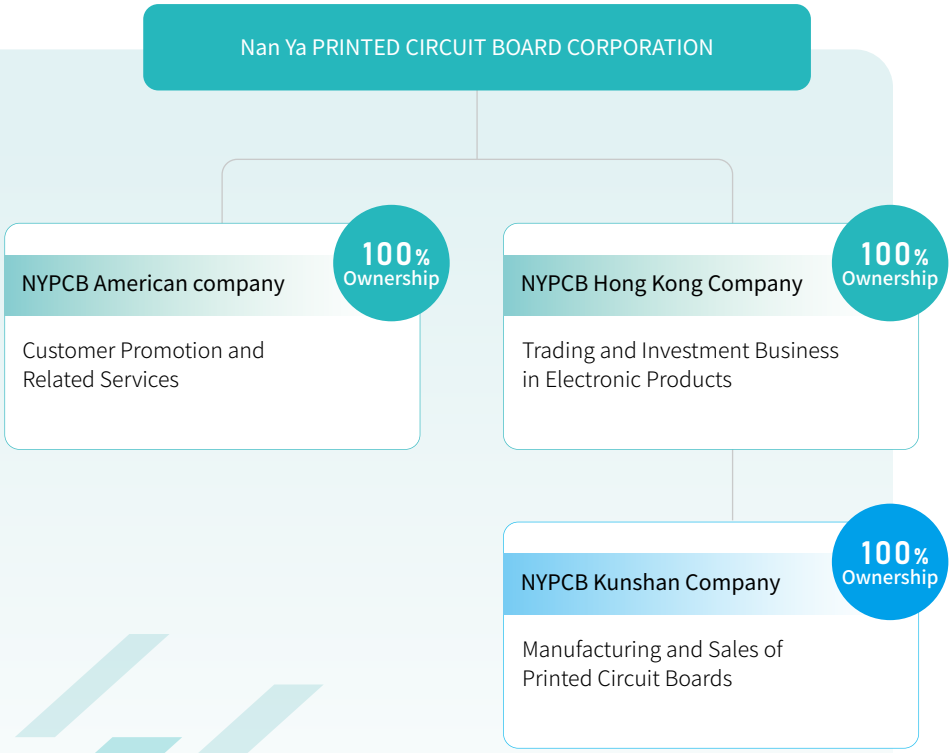
1.1 Operation Overview

1.1.1 Company Profile

NYPCB began operation in 1985, and was originally the printed circuit board division of Nan Ya Plastics Corporation, a subsidy of Formosa Plastics Group. Nan Ya Printed Circuit Board Corporation became an independent company in 1997. The Company specializes in researching, developing, manufacturing, and selling of printed circuit boards and IC substrates (Wire Bond Substrates and Flip Chip Substrates).

NYPCB has service locations across all five continents, with the group headquarters situated in Taipei City, Taiwan. The main manufacturing plants are located in various areas of Taiwan, including Taoyuan City (Jingshin Plant), and New Taipei City (Shulin Plant), as well as in China (Kunshan Plant).

Organization Chart

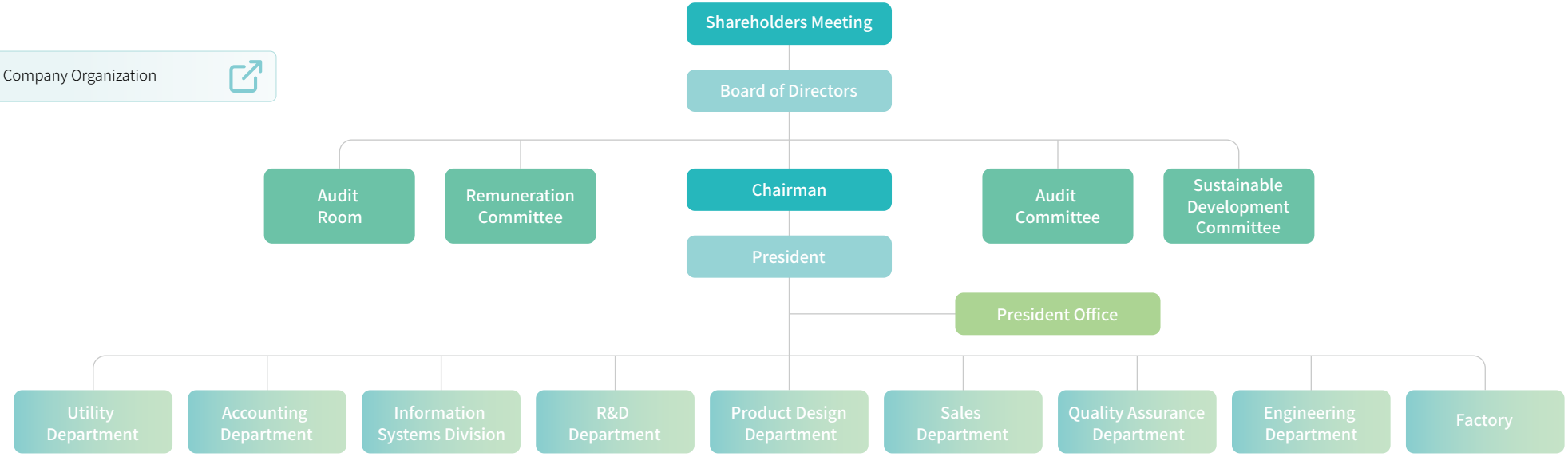


Date of Incorporation	October 28th, 1997
Company address	Headquarters: 3F., No.201-36, Dunhua N. Rd., Songshan Dist., Taipei City
Factory Address	Jingshin Plant: No.338, Sec. 1, Nankan Rd., Luchu District, Taoyuan City Shulin Plant:No. 57, Weiwang St., Shulin Dist., New Taipei City
Industry Category:	Electronic Components
Paid-in capital	NT$6.462 billion
Number of common shares in the market	646,165,487 shares
Employees	5,920 Employees
Products	Manufacturing and sales of Conventional PCB, High Density Interconnection (HDI), Rigid-Flex, ABF (Ajinomoto Build-up Film) Substrate, and PP (Prepreg) Substrate
Overseas production factory	Sales Service NYPCB USA: 1761 E. McNair Dr STE 101, Tempe, AZ 85283, USA
	Holding Company NYPCB Hong Kong: 18 Wei Fai Road, Causeway Bay, Hong Kong (7th Floor, World-Wide House)
	Manufacturing Site NYPCB Kunshan: No. 201, Changjiang South Road, Kunshan Economic Development Zone, Jiangsu Province, China +86-(512)5735-7080

As a member of the Formosa Plastics Group, Nan Ya PCB adheres to the founder's philosophy and has always attached great importance to the protection of shareholders' rights and interests. We believe that only through a rigorous and efficient governance mechanism, which can help to ensure the company abides by laws, increases financial transparency, and improves operating efficiency. Therefore, the operational organization structure of Nan Ya PCB is designed to achieve the ultimate goal, as shown in the figure below:

Operating Organization Chart

Company Organization



The company actively participates in important domestic organizations such as Taiwan Printed Circuit Association (TPCA) and Taiwan Electrical & Electronic Manufacturer’ s Association(TEEMA), engaging in seminars and conferences both domestically and internationally to enhance mutual exchange and explore collaboration opportunities.

List of Member Associations and Organizations

Name of Association or Organization	Position	Executive from theCompany	
Taiwan Printed Circuit Association	Member representative	President Ann-De Tang	
	Member representative	Vice President Kuo-Chun Chiang	
Taiwan Electrical and Electronic Manufacturers' Association	Member representative	President Ann-De Tang	Associate Manager Kuo-Long Chen
		Vice President Lien-Jui Lu	Associate Manager Mao- Sung Huang
		Vice President Kuo-Chun Chiang	Associate Manager Sung- Long Chien
		Associate Manager Young- Kee Lin	

1.1.2 Market Position and Development Vision

With the trend toward smaller form factors and enhanced functionality in electronic products, printed circuit boards (PCBs) are evolving toward higher layer counts, increased density, and finer circuit lines. At the same time, thinner board profiles are increasingly required to meet the portability demands of modern devices. However, due to the relatively low entry barriers in the PCB market and the large number of manufacturers, competition is extremely intense—particularly for 4 to 10-layer PCBs used in computing and communications applications.

In contrast, the IC substrate market is shaped by ongoing trends in the semiconductor industry, including multi-functionality, high density, and chip miniaturization, along with an emphasis on the heterogeneous integration of electronic components and semiconductor technologies. Although more competitors have gradually entered the IC substrate space, the higher technological complexity of these products results in fewer qualified players and, therefore, less severe price competition compared to traditional PCBs.

Currently, our major clients include world-class companies from the United States, Japan, and Europe in industries such as computing, servers, communications, networking, consumer electronics, and automotive components. As a result, the company' s products are shipped to assembly plants around the world. Nanya is also actively promoting green manufacturing and sustainable development, which serve as key pillars of its long-term competitiveness.

Global service

Prospects, Opportunities and Challenges to the Industry

There are two major trends shaping the future of the industry. First of all, the rapid growth in sales of 5G communications, artificial intelligence (AI), and edge AI devices is driving demand for substrates used in 5G base stations and networking applications, circuit boards for server applications, high-performance computing (HPC) chip substrates, and system-in-package (SiP) substrates. Secondly, the continued expansion of the AI data center market, along with the ongoing PC replacement cycle fueled by Microsoft Windows 11 and the recovery in networking product sales, is expected to further boost demand for high-end IC substrates and circuit boards.

The company also aims to enhance overall profitability by increasing the proportion of high-value product sales, which serves as the foundation for both short-term and long-term business development plans.

- Short-term Business Plan:

  In response to rising demand for artificial intelligence and high-performance computing products, the company will focus on expanding production capacity for large-size IC substrates and developing potential customers. At the same time, the product mix will be continuously adjusted in line with market acceptance to increase production value and improve profitability.

- Long-term Business Development Plan:

  In alignment with future market trends, the company will concentrate on products related to the Internet of Things (IoT), system-in-package (SiP), and CoWoS packaging technologies. The long-term development strategy will be driven by maintaining a competitive edge in product quality and technological leadership.

Industry future	Market' s future supply and demand situation and growth • The global PCB industry is expected to grow at a 5.6% CAGR between 2023 and 2028. • The general PCB market is experiencing oversupply. • Demand in the PC and network communication sectors is rebounding.	competitive niche • All electronic products require PCB. • Emerging applications provide growth opportunities. • Advanced semiconductor packaging consumes more IC board capacity.
NYPCB' s Development Vision	Advantages and Opportunities • Long-term stable cooperation with leading international semiconductor firms. • Lower level of price competition for high-end IC boards. • Leading production technology for high-end IC boards. • Continuous integration of artificial intelligence and big data into production management to enhance yield and efficiency. • Continued development towards larger sizes and higher layer counts for high-end IC boards, favoring the increase in average product unit price.	Disadvantages and Response Strategies • Intense price competition for general PCB. • Significant increase in production capacity for high-end IC boards leading to oversupply. • Increase the sales proportion of high-value-added products, such as HDI, and continuously optimize the product mix. • Improve and upgrade manufacturing processes to enhance product yield.

1.1.3 Financial Performance

Stable profitability is fundamental to a company's operations. NYPCB is a professional circuit board manufacturing company and focuses on operational developments. The incomes and profits are mainly from operational activities. The Company continues to gain more clients and enhances manufacturing processes to strengthen financial performances. For detailed financial information, please visit our official website under "Financial Information

Financial Information >

2024 NYPCB Financial Information

Unit:Thousand NTD

Direct Economic Value Generated	Operating Revenue (A)	32,283,331
	Non-operating Income and Expenses (B)	1,429,722
Distributed Economic Value (C)	Operating Costs (including employee salaries and benefits)	31,925,633
	Payments to Providers of Capital	646,165
	Payments to the government by country	-40,661
	Community Investments	796
Retained Economic Value (A + B - C)		1,181,120
Total Government Financial Subsidies (20% Taiwan, 80% China)		365,464

Note 1: The 2024 tax payment by country includes income tax expenses and investment tax credits; therefore, the figure is negative.

Note 2: Data source: Consolidated financial statements.

1.2 Product Innovation and Research & Development (R&D)

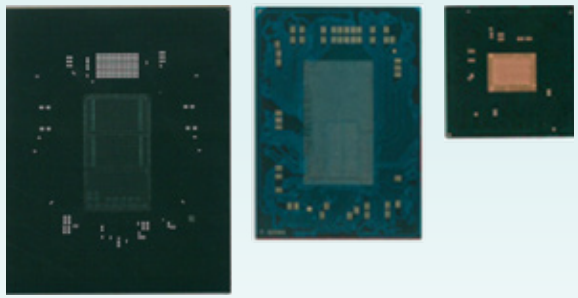
1.2.1 Main product development

NYPCB continues the research and development in the three main products (ABF Substrate, PP Substrate, and conventional PCB). The Company has successfully mass-produced the high-end HDI, high-layer board and high-end substrate, and successfully entered the supply chain of world-level customers.

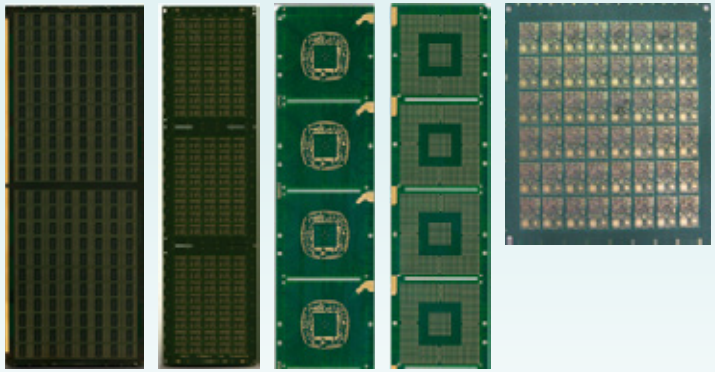
Product Name	Item	Application Notes	Application level
Conventional PCB	High Density Interconnect (HDI) PCB	It is a key component used as a carrier in various electronic devices and serves as the interconnection between different components to communicate messages.	Applications include: Notebook computers, workstations, servers, high-end memory modules, game consoles, TV set boxes, cars, LED displays, mobile phone peripherals, and wireless charging.
	High layer count PCB		
IC Substrate	PP Substrate	It is applied to the carrier of the IC chip product, so that the output/input signal of the chip communicates with the inner/outer leads on the PCB, and it can also assist in the heat dissipation of the chip.	• Netcom products: network switches, routers, wireless chipsets, radio frequency, optical fiber communication chips, etc. • Server products: cloud servers, data centers, AI chips, etc. • Consumer electronics: digital TV chips, game consoles, set-top boxes, etc. • Computer products: central processing unit, graphics chip, DRAM chips, etc. • Others: car infotainment system, etc.
	ABF Substrate		

Classification of Products

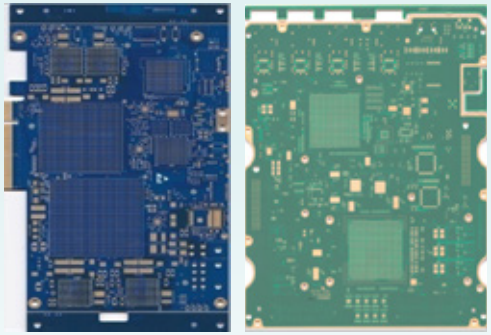
ABF Substrate



PP Substrate



Conventional PCB



1.2.2 Innovative R&D patents and intellectual property protection

NYPCB has formulated the "Research and Development Management Measures " and setup related computer operations, and stipulated rewards for key product research and development and patent approval in the "Research and Development Achievement Award for R&D Personnel". The Company also has a number of protection measures in terms of patents and confidential information, uses a digital management system to reduce the risk of harm, and reports the operation of intellectual property rights to the board of directors at least once a year.

Intellectual Property Management

Number of Approved Patents in the Past 3 Years (Cumulative)

Unit: number of patent

Item	2022	2023	2024
Number of Patent Applications	207	210	214
Number of Approved Patents	205	207	211

1.2.3 Green product design

Management of Product Lifecycle

In the production process, NYPCB not only considers process efficiency and quality, but also cares about environmental issues related to the products, integrating environmental principles from source design to waste recycling. In terms of hazardous substance management, product energy saving efficiency, and product raw material recycling, NYPCB follows international management standards and relevant environmental protection label verification specifications to promote the overall revenue share of green products.

Hazardous Substance Management

From raw material procurement to product sales, NYPCB attaches great importance to customer health and safety. In line with market transcend he needs of downstream customers, NYPCB is moving towards the development trend of producing non-toxic green products, and compliance with the EU RoHS Directive on the Restriction of Hazardous Substances in Electrical and Electronic Products.The Company has simultaneously requested the suppliers to sign the declaration of their products and provide independent test report, so that the new generation of circuit boards can be used in green home appliances and other fields, and continue to reduce the burden on the environment.

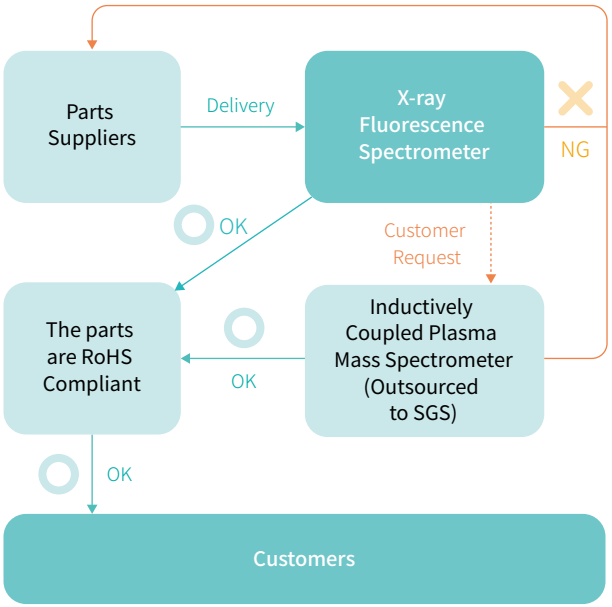
- Green Partner Certification

  Since 2001, our company has been engaged in the management of hazardous substances in products and the implementation of Green Partner program, completing the Green Partner standard process in 2004. We continuously strive to meet green standards and requirements, ensuring that our product control complies with hazardous substance regulations and customer specifications. We aim to reduce operational risks through source management, process control, and customer-side management.

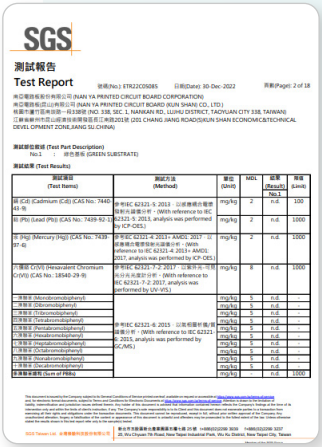
- Hazardous Substance Management Policy and Results

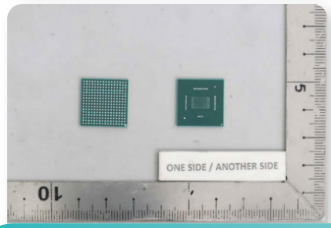
  NYPCB has produced documents and designed management principles for its green partners and effectively monitor the source of its raw materials and other relevant materials to make sure they are in compliance with RoHS, REACH, international laws, customer requirements and the standards of green products. The company' s Occupational safety and health management entities and Quality Assurance Department act as the green product promotion organization, and implement the management goal of Hazardous Substances Free (HSF)

Hazardous Substance Management Process



RoHS Specification and Product Packaging





SGS Product Inspection Certificate (including REACH inspection items)

1.3 Identification of Material Topics

1.3.1 Material Topic Identification Process

NYPCB conducts a material topic analysis process to comprehensively understand the issues of concern to stakeholders and assess the impact of these issues on the company. This serves as the reference basis for preparing this report. The material topic analysis method for 2024 builds on previous methods, with optimizations compared to last year, particularly in analyzing the impact dimensions and degree of variation, and providing a more in-depth description of the "financial impact degree" of the topics. The execution process has not undergone significant changes.

STEP. 1	Stakeholder Identification	7 categories Stakeholders	Through discussions between the report editing team and various departments, and by referencing the five key principles of the AA1000 Stakeholder Engagement Standard (SES), seven major stakeholder categories have been identified.
STEP. 2	Collection of Business Impact Items	93 items Impact Items	Referencing GRI, IFRS S1/S2, SASB, the Corporate Sustainability Best Practice Principles for Listed Companies, ISO 26000 Social Responsibility Guidance, international industry benchmarks, UN SDGs, domestic and international industry issues, global trends, and media reports, the impact items and their actual/potential, positive/negative effects on the company have been identified, resulting in a total of 93 impact items.
STEP. 3	Integration of Business Impact Items into Sustainability Issues	21 sustainability issues	After receiving integration recommendations from the consulting team, the impact items were grouped into sustainability issues based on themes. Following discussions between core members of the ESG task force and external consultants, a total of 21 sustainability issues were identified for further assessment.
STEP. 4	Material Topic Analysis and Prioritization	262 questionnaires	Through an electronic questionnaire, distributed with the assistance of the CEO's office and various departments, the analysis was conducted based on 'the financial impact degree of issues on the organization' and 'the impact degree of the organization on the external environment. A high, medium, and low intensity analysis was performed to assess their importance. A total of 262 questionnaires were collected, including 251 stakeholder questionnaires and 11 executive questionnaires.
STEP. 5	Impact Assessment and Discussion of Topics	10 material topics	Using the principles of materiality analysis from GRI 3 and materiality assessment from IFRS S1, the financial impact and likelihood of occurrence for high- and medium-level issues were evaluated, leading to the identification of 10 material topics.
STEP. 6	Disclosure and Reporting of Material Topics	Ongoing communication and response	After analysis by the company, the 10 material topics have been selected as the key focus for this report. The disclosure indicators are aligned with the GRI Standards, and management guidelines for each issue have been established. Relevant information is thoroughly disclosed in this report to meet stakeholder expectations of the company. Moving forward, we will continue to review the importance of sustainability issues, respond to stakeholder expectations, and ensure that the content disclosed in the report is transparent, reasonable, and balanced.

1.3.2 Stakeholder Engagement

Stakeholder Identification

NYPCB's ESG organization based on global trend, industrial feature, experiences generated from daily interactions with stakeholders, and degree of impacts stakeholders pose on corporate operation. In 2022, the Company applied the AA1000 Stakeholder Engagement Standard (SES) based on the five principles of inclusivity, materiality, responsiveness, completeness, and impact, and reidentified seven categories of stakeholders, including: employees, investors/corporations, customers, suppliers, media, government agencies, and neighboring communities.

Definition

Define and determine the boundaries and scope of stakeholders through collaborative discussions among colleagues from different departments

Assessment

Assess the importance level of stakeholders through the 5 identification principles of AA1000 SES (Dependence, Responsibility, Influence, Diversity of Perspectives, and Concern

Identification

Integrate the assessment results to identify the 7 major categories of stakeholders

Stakeholder Communication Channels and Issues of Concern

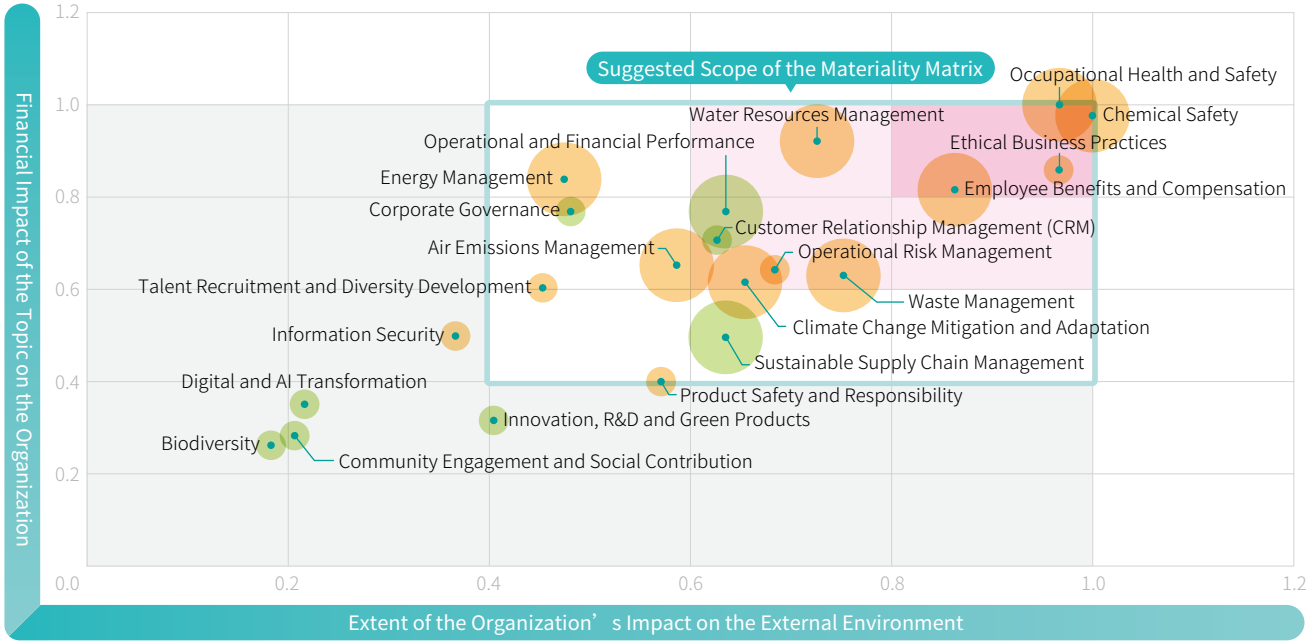
The Company has established a dedicated stakeholder section on the Company's website to enhance communication with our stakeholders. The platform enables us to fully comprehend our stakeholders' thoughts and requirements, and alLows us to gather their concerns and feedback. Any received proposals or feedback are reviewed by the functional teams within the President's Office to determine if the issue significantly impacts our stakeholders. Upon evaluation, the case will be categorized based on its level of impact and then forwarded to the board meeting for further actions. For detailed information, please visit the 'Stakeholders Section' on our company's official website.

Stakeholders Section

Stakeholder	Channel	Communication Frequency	Issue of Concern
Employees	1. Internal announcements	Irregularly, at least once per year	• Integrity in Business Operations • Chemical Safety • Occupational Health and Safety • Operational and Financial Performance
	2. Representatives from the Human Resource Department	Once per month	
	3. Regular meetings such as union core members seminars, education Once per month seminars, Labor Safety Committee, and various training seminars		
	4. Irregular meetings	Irregularly, at least once per year	
	5. The Administration Department has stablished communication channels such as suggestion boxes		
	6. Internal publications, online platforms and questionnaires (e.g.questionnaires on training satisfaction, cafeteria quality satisfaction)		
Investors(Corporations)	NYPCB has implemented a spokesperson and deputy spokesperson system, and established a specialized unit dedicated to addressing investors' affairs. Additionally, the company maintains communication with both individual and corporate shareholders through the folLowing established channels:	-	• Integrity in Business Operations • Chemical Safety • Public Safety at Manufacturing Sites • Operational and Financial Performance
	1. Shareholders		
	(1) Annual shareholders' meetings	Once per year	

Stakeholder	Channel	Communication Frequency	Issue of Concern
 Investors(Corporations)	(2) Published annual financial reports as requested and provided themto shareholders during the annual shareholders' meetings	Once per year	• Integrity in Business Operations • Chemical Safety • Public Safety at Manufacturing Sites • Operational and Financial Performance
	(3) Shareholders can make inquiries through phone calls and emails	Irregularly	
	2. Corporate shareholders	-	
	(1) Analyst meetings in Taiwan and overseas	Irregularly	
	(2) Investor forums held by securities companies		
 Customers	1. Customers audits	Irregularly, at least once per year	• Integrity in Business Operations • Chemical Safety • Occupational Health and Safety • Operational Risk Management
	2. Meeting with customers and dealers		
	3. Regular technological support		
	4. Customer satisfaction survey		
	5. Educational training for customers	Once per year	
 Suppliers	1. Established an information platform for suppliers	Irregularly, at least once per year	• Integrity in Business Operations • Chemical Safety • Occupational Health and Safety • Regulatory Compliance
	2. Held meetings and reviewed reports in person regularly		
	3. Conducted supplier surveys through questionnaires, and provided audits and consulting services		
	4. Reviewed material supply stability and quality		
	5. Launched a fundraising campaign to support domestic disaster relief efforts folLowing major natural disasters	Once per year	
 Media	1. Shareholders visit after the annual shareholders meeting	Once per year	• Integrity in Business Operations • Greenhouse Gas Management • Talent Recruitment and Development • Sustainable Supply Chain Management
	2. News and interview	Irregularly, at least once per year	
 Government Agencies	1.Official documents	Irregularly,at least once per year	• Regulatory Compliance • Greenhouse Gas Management • Public Safety at Manufacturing Sites • Corporate Governance
	2.Meetings introducing and explaining new laws	Irregularly	
	3.The Company' s financial statements	Once per quarter	
	4. Provided reports and information as requested by the government,authorities, and regulations.	Irregularly,at least once per year	
 Neighboring Communities	Communicated and informed communities through the company' s website	Irregularly,at least once per year	• Integrity in Business Operations • Chemical Safety • Occupational Health and Safety • Operational and Financial Performance

1.3.3 Matrix of Topics Impact Assessment



Management Approach

High Material Topics	4
Medium Material Topics	6
Low Priority Topics	6
Monitored (Non-Material) Topics	5

Opportunities and Risks Related to the Topic

Opportunities	8
Risks	13

Probability of Occurrence

High	Medium	Low
10	0	11

Note 1: The green circle represents 'opportunity' sustainability issues; the orange circle represents 'risk' sustainability issues.

Note 2: The likelihood of future impact, with 'High' indicating an impact probability >80% for the organization/business, 'Medium' indicating an impact probability >50%, and 'Low' indicating an impact probability <50%.

Note 3: This year, 'Plant Public Safety' and 'Occupational Health and Safety' have been merged into 'Occupational Health and Safety'.

Matrix of Topics Changes

#	Important Topics	Importance		Adjustment Method	Explanation of Change
		2023	2024		
1	Employee Benefits and Compensation	Medium	High	▲ Increase	In response to the industry' s operational development and the labor shortage in the talent market, NYPCB has increased its focus on talent capital management, enhanced salary and benefits, and strengthened measures to retain talent.
2	Operational Risk Management	Low	Medium		In response to industry-specific and international market fluctuations, NYPCB has strengthened its risk management measures and focus to prevent risks from occurring and causing operational damage.
3	Climate Change Mitigation and Adaptation	Low	Medium		In response to the enhanced climate change management requirements of the international framework IFRS S2, including greenhouse gas management measures, which are gradually becoming stricter, NYPCB has increased its attention and strengthened related actions to optimize management effectiveness.
4	Customer Relationship Management	Low	Medium		In response to corporate and market demand expectations, and to strengthen customer relationship management, NYPCB has built stable partnerships to ensure product demand and market sales revenue.

#	Important Topics	Importance		Adjustment Method	Explanation of Change
		2023	2024		
5	Waste Management	High	Medium	▼ Decrease	NYPCB actively promotes waste management and reduction measures to respond to industry characteristics and regulatory requirements, continuing effective management.
6	Air Pollutant Management	Medium	Low		NYPCB complies with regulations and industry standards to reduce air pollution emissions at its plants, continuously improving management measures to prevent pollution incidents.
7	Sustainable Supply Chain Management	Medium	Low		In response to investment directions and market trends, and to address industry changes and sustainable transformation, NYPCB is implementing relevant measures and continuing active management.

1.3.4 Impact Identification and Value Chain

Impact Identification and Value Chain Comparison

● cause ▲ contribute to ✓ directly linked to

No.	Material Topics	Impact Explanation	Impact Dimensions		Financial Materiality (Note 1)	Value Chain Comparison (Note 2)					Comparison with GRI Standards	UN SDGs	Chapter
						Upstream		Operations	Downstream				
						RD and Improvement	Raw Material Procurement	Manufacturing and Production	Product Sales	Sales Service and Consultation			
1	Operational Financial Performance	Impact on External Parties Enhance financial performance to improve investor financial capital and investment confidence. Significance to the Organization Enhance the industry's competitive landscape and build stronger resilience in response to market fluctuations, maintaining financial and operational stability.	Actual	⊕ Positive 63.0% ⊖ Negative 37.0%	Low			✓			201: Economic Performance	SDG8.1	1.1.3: Financial Performance
2	Integrity in Business Operations	Impact on External Parties Proper management will enhance the company' s reputation, promote cooperation and investment, reduce compliance risks, and prevent legal liabilities and reputational damage. Significance to the Organization Strengthen the company' s reputation and stability. Corruption or improper lobbying could harm the company' s reputation, leading to fines, lawsuits, or divestment.	Potential	⊕ Positive 47.6% ⊖ Negative 52.4%	Low			✓			205: Anti-corruption 206: Anti-competitive	SDG16.5	2.1.3: Integrity in Business Operations

No.	Material Topics	Impact Explanation	Impact Dimensions		Financial Materiality (Note 1)	Value Chain Comparison (Note 2)					Comparison with GRI Standards	UN SDGs	Chapter
						Upstream		Operations	Downstream				
						RD and Improvement	Raw Material Procurement	Manufacturing and Production	Product Sales	Sales Service and Consultation			
3	Operational Risk Management	Impact on External Parties Effective risk management can enhance the company' s reputation and strengthen investor confidence. If not properly managed, it could lead to financial losses, operational disruptions, reduced investor confidence, and even legal risks. Significance to the Organization By identifying risks and responding early, operational risks can be minimized, ensuring stable business development. Insufficient management could lead to supply chain issues, cash flow shortages, or a decline in market competitiveness.	Potential	⊕ Positive 31.3% ⊖ Negative 68.8%	High			●			Custom Theme	-	2.2.1: Risk Management and Response
4	Customer Relationship Management	Impact on External Parties Good customer relationship management enhances loyalty, competitiveness, and business growth, optimizes services to meet demands, and strengthens reputation and market share. Significance to the Organization Effective management will stabilize revenue and strengthen customer relationships. Poor management could lead to customer loss, decreased revenue, and negatively impact market positioning.	Actual	⊕ Positive100.0% ⊖ Negative 0.0%	High	▲	▲	▲	✓	✓	Custom Theme	-	2.4: Customer Relationships
5	Climate Change Mitigation and Adaptation	External Impact Promote energy management measures, focus on energy conservation and carbon reduction activities, and use renewable energy to reduce greenhouse gas emissions in order to meet SBT targets. Organizational Significance Reduce energy waste, lower energy costs, and prevent the negative impact of poor carbon reduction performance, which could lead to high carbon fees and failure to meet customer expectations.	Potential	⊕ Positive 47.1% ⊖ Negative 52.9%	High	▲	✓	●	✓	▲	201-2: Financial Impacts of Climate Change and Other Risks and Opportunities 305: Emissions	SDG3.9 SDG12.4 SDG13.1	3.2: Climate Change Actions

No.	Material Topics	Impact Explanation	Impact Dimensions		Financial Materiality (Note 1)	Value Chain Comparison (Note 2)					Comparison with GRI Standards	UN SDGs	Chapter
						Upstream		Operations	Downstream				
						RD and Improvement	Raw Material Procurement	Manufacturing and Production	Product Sales	Sales Service and Consultation			
6	Water Resources Management	External Impact Utilize recycled water to reduce dependence on tap water, promote water-saving measures to minimize water waste, comply with regulatory discharge standards, and maintain river ecosystems. Organizational Significance Reduce tap water consumption, mitigate the risk of production disruptions due to water shortages during dry seasons, and ensure timely product deliveries.	Potential	Positive 0.0% Negative 100.0%	High						303: Water and Effluents	SDG6.3 SDG6.4	3.3: Water Resources Management
7	Waste Management	External Impact Classify waste according to regulatory standards and entrust legal disposal and treatment companies to prevent waste from being indiscriminately dumped, which could lead to environmental deterioration. Organizational Significance Effectively manage waste to maintain a clean internal environment and reduce costs associated with the disposal of combustible waste.	Potential	Positive 45.5% Negative 54.5%	High	▲	▲	●	▲	▲	306: Waste	SDG3.9 SDG6.3 SDG12.4	3.5.1: Waste Management
8	Chemical Safety	External Impact Effectively manage chemicals to prevent harm to personnel and the environment from toxic substances. Organizational Significance Prevent injuries to employees and damage to the surrounding environment due to improper chemical management.	Potential	Positive 0.0% Negative 100.0%	Low			●			Custom Theme	SDG3.9 SDG6.3 SDG12.4	3.5.2: Chemical Safety

No.	Material Topics	Impact Explanation	Impact Dimensions		Financial Materiality (Note 1)	Value Chain Comparison (Note 2)					Comparison with GRI Standards	UN SDGs	Chapter
						Upstream		Operations	Downstream				
						RD and Improvement	Raw Material Procurement	Manufacturing and Production	Product Sales	Sales Service and Consultation			
9	Employee Benefits and Compensation	External Impact Provide comprehensive compensation, benefits, and promotion systems to ensure the company's overall salary structure is competitive in the talent market. Organizational Significance Increase employee salaries, care for their well-being, strengthen employee engagement, and ensure the company's stable growth.	Actual	Positive 46.5% Negative 53.5%	High			●			401: Labor-Management Relations 405: Employee Diversity and Equal Opportunities	SDG5.1 SDG5.4 SDG8.5	4.2: Compensation and Benefits
10	Occupational Health and Safety	External Impact Implement effective safety management to prevent occupational hazards such as leaks, fires, or explosions from affecting neighboring areas, and avoid work stoppages that could prevent timely product delivery to customers. Organizational Significance Create a safe workplace and control exposure to health hazards, ensuring employees can work with peace of mind.	Actual	Positive 47.6% Negative 52.4%	Medium-High	▲	▲	●	▲	▲	403: Occupational Health and Safety	SDG3.4 SDG3.5 SDG8.8	4.5: Occupational Health and Safety

Note 1: Financial Materiality Categories: "High" refers to financial impacts greater than NT$20 million; "Medium-High" refers to financial impacts between NT$20 million and NT$5 million; "Medium" refers to financial impacts between NT$5 million and NT$1 million; "Medium-Low" refers to financial impacts between NT$1 million and NT$500,000; "Low" refers to financial impacts below NT$500,000.

Note 2: "Cause ●" refers to when an organization causes the impact due to its own activities; "Contribute to ▲" refers to when an organization's activities lead, facilitate, or induce another entity to cause the impact; "Directly Linked to ✓" refers to when an organization does not cause or contribute to a negative impact, but its operations, products, or services may still result in negative impacts due to business relationships.

2 chapter Corporate Governance

Vision

NYPCB strictly abides by legal requirements and upholds ethical standards, continuously strengthening its corporate governance and risk control mechanisms. The Company promotes ethical awareness among all employees, upholding the corporate spirit of "diligence, simplicity, and pursuit of excellence," with the goal of becoming the most trusted company.

Policy and Commitment

NYPCB adheres to the principles of integrity, transparency, self-discipline, and accountability. The Company has established the "Code of Ethical Conduct for Directors and Managers" and the "Ethical Corporate Management Best Practice Principles." Through the implementation of its "Risk Management Policy," NYPCB conducts annual risk identification and mitigation through internal control mechanisms to prevent unethical or illegal behavior that could harm the Company or its shareholders. To enhance customer service and engagement, NYPCB also conducts regular customer satisfaction surveys and incorporates the feedback into operational improvements.

Material Topics

Integrity in Business

Framework & Indicator • GRI 205 Anti-Corruption • GRI 206Anti-Competitive • SDG 16.5

Impact Description NYPCB has implemented internal management mechanisms covering taxation policies, board composition and operations, and due diligence on business partners to assess the legitimacy and integrity of their operations. The Company avoids transactions with entities having records of unethical or illegal practices.

Management Action	2024 Action performance tracking	Achieve Overview	short-term target	medium, and long-term target
Enforce internal regulations and periodically review their legality, and provide both internal and external grievance channels.	• No incidents of corruption or violations of ethical business practices. • No complaints received related to ethical conduct.	Achievement	Ensure compliance of corporate policies with applicable laws and regulations.	Ensure compliance of corporate policies with applicable laws and regulations,promote the policy of ethical corporate management and enhance corporate governance and ensure timely disclosure of material information to safeguard shareholder interests.
Regularly organize training sessions on integrity-related topics.	• 100% participation by all directors in training courses on insider trading prevention and handling of material internal information. • 2,012 participants completed the online training course on insider trading prevention, totaling 1,006 training hours with an average test score of 94. • 9,711 total participants in courses on compliance with ethical standards, business ethics, and corporate governance, accumulating 4,856 hours.	Achievement	Ongoing training initiatives on anti-corruption, insider trading prevention, and ethical business management.	
Operational units conduct regular self-inspections; the independent audit department conducts irregular reviews.	• All internal and external audits completed with no corruption incidents identified. • Ranked in the top 6-20% in the 11th Corporate Governance Evaluation among 976 listed companies.	Achievement	• Continued improvement of internal control systems to ensure zero tolerance for corruption. • Continued participation in corporate governance evaluations with consistent placement in the top 6–20%.	

Stakeholder	Response	Results
Investors/Institutions	• Disclose material company information to investors through investor conferences and the release of material information in both Chinese and English.	• Held 4 institutional investor conferences and uploaded 2 conference videos. • Published 23 material information announcements in both Chinese and English.
Employees	• Provide multiple whistleblowing channels, including a physical mailbox, email address, and fax hotline, enabling employees to report inappropriate behavior at any time, while ensuring the confidentiality of the investigation process.	• No employee complaints or reports related to "ethical business practices" were received.

Material Topics

Operational Risk Management

Framework & Indicator • Custom Topics

Impact Description Risk Management Measures Adopted by NYPCB in Response to Market Competition, Material Shortages, and Talent Loss

Management Action	2024 Action performance tracking	Achieve Overview	short-term target	medium, and long-term target
Ongoing supervision of risk-related issues	• Weekly “Management Meetings” were held to review and assess the company’s operational performance, covering various risk topics (strategic, operational, financial, hazard, cybersecurity, and other risks), and to formulate corresponding strategies. • Monthly meetings were held for environmental protection and energy conservation, human resources management, procurement and material management, as well as occupational safety and health, to ensure continued oversight of implementation status.	Achievement	• Enhance risk awareness and responsiveness through ongoing internal and cross-departmental meetings. • Ensure the effectiveness of emergency response mechanisms.	Continue enhancing the risk management system. Integrate risk management into the company’s culture and decision-making processes, embedding it into daily operations.
Reporting to the Board of Directors at least once per year on risk management operations	On May 3, 2024, a report was submitted to the Board outlining the actual implementation of risk management initiatives, including long-term strategic goals for climate change, energy conservation and carbon reduction strategies, medium- to long-term visions, and annual performance outcomes.	Achievement		

Stakeholder	Response	Results
Employees	• Hold monthly meetings on environmental protection and energy conservation, human resources, procurement, and occupational safety to communicate policies and monitor implementation.	• Closely monitor the strategies and execution of environmental protection and supply chain security initiatives to effectively manage and mitigate risks.
Investors/Institutions	• Disclose material company information to investors through investor conferences and the release of material information in both Chinese and English.	• Participated in four investor conferences upon invitation, and uploaded video recordings of two sessions. • Published 23 material information announcements each in Chinese and English.

Material Topics

Customer Relationship Management

Framework & Indicator • Custom Topics

Impact Description NYPCB builds long-term partnerships with industrial clients by responding proactively to their needs and continuously enhancing customer satisfaction.

Management Action	2024 Action performance tracking	Achieve Overview	short-term target	medium, and long-term target
Continuous Customer Satisfaction Surveys	• The overall customer satisfaction score in 2024 was rated above grade A, showing improvement compared to 2023.	✓	Achieve an overall satisfaction rating of Grade A	Achieved an overall rating of A+
Establishment of an Effective Communication System for Timely Response	• A total of 9 customer complaints were received in 2024, mainly related to product quality. All cases were resolved and closed in accordance with internal procedures.	✓	Respond within 7 days per abnormal handling procedure	Established strong, trusted client relationships
Implementation of Internal Training to Enhance Employee Awareness of Customer Needs and Requirements	• 12 training sessions on customer management were provided to sales department staff, with a primary focus on contract review and compliance. • The sales team conducted regular client visits to maintain open communication and exchange feedback effectively.	✓	At least 12 training sessions conducted	Maintained effective communication to provide suitable products

Stakeholder	Response	Results
Customer	• Conduct annual customer satisfaction surveys to collect feedback and continuously improve products and services. • Sales and customer service teams conduct regular visits to clients to maintain open communication and build long-term relationships. • A dedicated customer service contact point is in place to receive and respond to customer feedback on an ongoing basis.	• The overall customer satisfaction rating was above Grade A in 2024, showing improvement over 2023. • A total of 9 customer complaints were received in 2024, primarily related to product quality. All complaints were addressed and closed according to internal procedures.
Supplier	• Quarterly business review meetings are held with suppliers to discuss performance execution and customer needs, ensuring effective communication and collaboration across the supply chain. • Annual supplier document reviews and on-site audits are conducted to verify compliance with delivery schedules, product quality, and regulatory requirements.	• Business review meetings in 2024 focused on key topics such as delivery lead times, product quality, and pricing, to align with product and business requirements. • All suppliers audited in 2024 passed both document reviews and on-site inspections, confirming full compliance with business standards.

2.1 Governance Structure

2.1.1 Operation of the Board of Directors

The Board of Directors, entrusted by the shareholders, serves as the highest governance body of the Company. Its primary responsibilities include ensuring transparency of corporate information and compliance with laws and regulations, the appointment of senior executives, formulation of profit distribution proposals, and supervision and guidance of company operations. Under the Board, functional committees such as the Compensation Committee, Audit Committee, and Sustainability Committee have been established to assist in managing ESG-related matters, including ethical business practices.In accordance with the Company Act, the Company' s Articles of Incorporation, the Rules of Procedure for Board Meetings, and NYPCB' s "Code of Ethical Conduct for Directors and Managers" and "Ethical Corporate Management Best Practice Principles," relevant personnel are required to perform their duties with integrity and in adherence to ethical standards. These regulations are intended to prevent any conduct that may harm the interests of the Company or its shareholders, and to ensure that all directors and managers fulfill their fiduciary duties with due care and diligence.For further information regarding the operation of NYPCB' s Board of Directors, please refer to the "Corporate Governance Structure, Operations, and Key Regulations" section on the Company' s official website.

Corporate governance structure and operation ›
Important company rules and regulations ›

To establish a robust corporate governance system and define the scope of sustainable development, NYPCB has formulated the Sustainable Development Best Practice Principles, with reference to relevant guidelines set forth by the Taiwan Stock Exchange Corporation and the Taipei Exchange. These principles are intended to ensure that the Company actively implements sustainable practices while conducting business operations. The effectiveness of implementation is regularly reviewed and continuously improved to promote a sustainability-driven competitive advantage.To address environmental protection, social responsibility, and corporate governance issues arising from its operational activities, NYPCB publishes an annual Sustainability Report. Relevant data are reviewed and verified by the ESG task force before being submitted to the Sustainability Committee and the Board of Directors. The Sustainability Committee and the Board are responsible for reviewing sustainability and risk management policies, strategies, and guidelines, supervising the implementation of related initiatives and action plans, and approving significant sustainability-related disclosures, including the Sustainability Report, which is released to the public upon approval by the Board.

The Role of the Board of Directors at NYPCB

Board' s Mission	Entrusted by the shareholders, the Board of Directors is the highest governance body of the Company. Its core responsibilities include ensuring transparency and legal compliance, establishing governance standards, overseeing the implementation of ethical business practices, strengthening the development of various ESG initiatives, managing potential risks, and maximizing corporate value.
Sustainability Vision	To implement sound corporate governance, enhance transparency in sustainability disclosures, align with global sustainability trends, and fulfill corporate social responsibilities in pursuit of long-term sustainable development.
ESG Strategies and Policies	• Identify stakeholders' key concerns and monitor evolving international ESG trends to guide the development of the Company' s ESG policies, ensuring effective oversight of strategy implementation and operational mechanisms. • Manage and supervise the execution and outcomes of due diligence processes, ensuring both effectiveness and accountability through ongoing review mechanisms.

Composition of the Board of Directors

The selection process for NYPCB' s Board members is conducted in accordance with the Company Act, the Regulations Governing Appointment of Independent Directors and Compliance Matters for Public Companies, and the Rules for Election of Directors. The Company adopts a candidate nomination system for director elections. As stipulated in the Company' s Articles of Incorporation, the Board shall consist of nine directors, including at least three independent directors, each serving a three-year term.

The current Board members were elected from the list of nominated candidates during the Annual General Shareholders' Meeting held in May 2023. All nominees were jointly proposed by shareholders holding 1% or more of the Company' s outstanding shares. The Board comprises nine members: one Chairperson, five Directors, and three Independent Directors, serving a term from May 2023 to May 2026.The current Chairperson is Mr. Chia-Chau Wu, and the President is Mr. Ann-De Tang. All directors are highly educated professionals with extensive industry experience, offering expert strategic guidance for the Company' s continued development. The average age of the Board members is approximately 73.To further enhance the independence and diversity of corporate governance, NYPCB currently has three Independent Directors. While there are presently no female directors, the Company plans to appoint female board members in the next Board election in 2026.For more information on the diversity of NYPCB' s Board of Directors, please refer to the "Board of Directors" section on the Company' s official website. For details on shareholding disclosures, please refer to the "Annual Report" section of the website.

Position	Name	Education	Concurrent positions in NYPCB or other companies
Chairman	Representative of Nan Ya Plastics Corporation Chia-Chau Wu	• Bachelor Degree in Business Administration, National Chengchi University	• Chairman of Nan Ya Plastics Corp., and Nan Ya Technology Corp..
Director	Representative of Nan Ya Plastics Corporation Wen-Yuan Wang	• Master Degree in Industrial Engineering,University of Houston • Bachelor Degree in Chemical Engineering, University of Houston	• Chairman of Formosa Taffeta Corp.. • Director of Formosa Plastics Corp., Nan Ya Plastics Corp., Formosa Chemicals & Fibre Corp., Formosa Petrochemical Corp., Nan Ya Technology Corp., Formosa Sumco Technology Corp. and Formosa Advanced Technology Corp..
Director	Representative of Nan Ya Plastics Corporation Ming-Jen Tzou	• Chemical Engineering Department of Taipei Tech	• Director of Nan Ya Technology Corp.. • Director President of Nan Ya Plastics Corp..
Director	Ann-De Tang	• Bachelor Degree in Electrical Engineering, National Taiwan Institute of Technology	• President of Nan Ya PCB Corp..
Director	Lien-Jui Lu	• Bachelor Degree in Chemical Engineering, National Taiwan Institute of Technology	• Vice President of Nan Ya PCB Corp..
Director	Kuo-Chun Chiang	• Master Degree in Management, National Central University	• Vice President of Nan Ya PCB Corp..
Independent Director	Ta-Sheng Lin	• Master Degree in Chemistry, Texas Southern University	• Chairman of China Electric Investment Corp.. • Director of China Electric MFG Corp..
Independent Director	Jen-Hsuen Jen	• Master Degree in Chemical Engineering, Massachusetts Institute of Technology	• Chairman of Fuchu Corp. and Fuchu Investment Corp.. • Independent Director of Wistron Corp. and Ion Electronic Materials Corp.. • Director of UltraChip Inc.
Independent Director	Shui-Chi Chuang	• Master in Economics, Chinese Culture University	• Director of Customs , MOF. • Deputy Director of Customs Administration, MOF. • Taipei Customs Commissioner, Customs Administration, MOF.

Board of Directors > | Annual Report >

Operations of the Board of Directors

Overview of the Board of Directors' Operations in 2024	
Number of Meetings	Average attendance rate of directors
5	100%

Major Resolutions	
Resolution Content	Progress Overview
Approval of the 2023 financial statements and formulation of the 2024 business plan.	Relevant financial information was disclosed on the Market Observation Post System (MOPS) following the Board resolution on February 29, 2024.
Determination of 2023 employee compensation.	Reported at the Annual General Shareholders' Meeting.
Approval of the 2023 earnings distribution proposal.	• Upon Board resolution on February 29, 2024, a cash dividend of NT$5.5 per share was approved. • Reported at the Annual General Shareholders' Meeting.
Approval to convene the 2024 Annual General Shareholders' Meeting on May 28, 2024.	Relevant information was disclosed on MOPS on March 11, 2024.
Approval of amendments to the Company' s Articles of Incorporation.	Approved by resolution at the Annual General Shareholders' Meeting.
Approval of the lease agreement with Nan Ya Plastics Corporation.	Relevant procedures carried out in accordance with the resolution.
Approval of the replacement of the Company' s financial statement auditing CPA.	Relevant procedures carried out in accordance with the resolution.
Approval of the Company' s 2023 Sustainability Report.	Disclosed on MOPS.
Approval of the Company' s financial statements for Q1, Q2, and Q3 of 2024.	Material information was announced on MOPS.
Approval of amendments to the "Internal Control System" and "Guidelines for Implementation of Internal Audits".	Internal audit operations conducted in accordance with the revised guidelines.
Approval of the record date and payment date for the 2023 cash dividend distribution.	Cash dividend to be distributed on August 14, 2024.
Approval of the 2024 salary adjustment for managers, aligned with the overall employee salary adjustments.	Relevant procedures carried out in accordance with the resolution.
Approval of the 2025 audit plan.	Reported on MOPS.

Training Status of Board of Directors

Board of Directors' Training Status in 2024				
Position	Name	Organization	Course	hours
Chairman	Chia-Chau Wu	Chung-Hua Institution Economic Research	Global Geopolitical and Economic Trends: Opportunities, Challenges, and Strategic Responses for Taiwan' s Industries.	3
		Securities and Futures Institute	Fiduciary Duties of Directors and Insider Trading.	3
Director	Wen- Yuan Wong	Chung-Hua Institution Economic Research	Global Geopolitical and Economic Trends: Opportunities, Challenges, and Strategic Responses for Taiwan' s Industries.	3
		Securities and Futures Institute	Fiduciary Duties of Directors and Insider Trading.	3
	Ming-Jen Tzou	Chung-Hua Institution Economic Research	Global Geopolitical and Economic Trends: Opportunities, Challenges, and Strategic Responses for Taiwan' s Industries.	3
		Securities and Futures Institute	Fiduciary Duties of Directors and Insider Trading.	3
	Ann-De Tang	Chung-Hua Institution Economic Research	Global Geopolitical and Economic Trends: Opportunities, Challenges, and Strategic Responses for Taiwan' s Industries.	3
		Securities and Futures Institute	Fiduciary Duties of Directors and Insider Trading.	3
	Lien-Jui Lu	Chung-Hua Institution Economic Research	Global Geopolitical and Economic Trends: Opportunities, Challenges, and Strategic Responses for Taiwan' s Industries.	3
		Securities and Futures Institute	Fiduciary Duties of Directors and Insider Trading.	3
	Kuo-Chun Chiang	Securities and Futures Institute	Business Growth and Innovative Thinking in the Age of AI.	3
			Understanding and Implications of Corporate ESG Sustainability Governance: Global Net Zero Carbon Emissions Trends and Corporate Responses.	3
Independent Director	Ta-Sheng Lin	Securities and Futures Institute	Insider Trading: Practical Cases and Legal Liabilities.	3
			Artificial Intelligence: Risks and Considerations for Enterprises.	3
		Chung-Hua Institution Economic Research	Global Geopolitical and Economic Trends: Opportunities, Challenges, and Strategic Responses for Taiwan' s Industries.	3
	Shyur-Jen Chien	Taipei Exchange	OTC Family: "AI Strategy and Governance."	3
		Taiwan Corporate Governance Association	AI and the Open Source Era: Analyzing Legal Risks for Enterprises.	3
			Building DEI Culture: Enhancing Corporate Sustainable Competitiveness.	3
	Shui-Chi Chuang	Chung-Hua Institution Economic Research	Global Geopolitical and Economic Trends: Opportunities, Challenges, and Strategic Responses for Taiwan' s Industries.	3
		Securities and Futures Institute	Fiduciary Duties of Directors and Insider Trading.	3

Board of Directors and Management Performance Evaluation

In addition to conducting regular self-inspections of the Board of Directors' operations and strengthening the functions of the Board, NYPCB's internal auditors also prepare audit reports on the operations of the Board to comply with regulatory requirements.

The measurement items for the Company's Board Performance Evaluation include the following five aspects: participation in the Company's operations, improvement of the quality of Board decisions, composition and structure of the Board, director selection and continuous education, and internal controls. The participation in the Company's operations includes the management of the Sustainable Development Committee, which provides regular reports on its execution. This allows the Board to monitor the economic, environmental, and social impacts and incorporate management effectiveness into the evaluation to achieve sustainable governance. The evaluation period for the Company's Board Performance Evaluation is from October 1st of each year to September 30th of the following year, and the evaluation results should be reported to the Board before the first quarter of the following year. The evaluation results for the year 2024 were reported to the Board in advance during the fourth quarter of that year, if any board members provide feedback and optimization measures, these will be implemented to facilitate the achievement of next year' s goals. The evaluation results will also be used as a reference for the re-nomination of board members,for more information, please refer to the " Performance Evaluation of the Board of Directors " section on the official website."

Board Performance Evaluation

The performance evaluation of NYPCB's executives is comprehensively assessed by the Chairman based on their overall performance within the scope of their responsibilities and the achievement of individual "annual work objectives". This is to ensure that executives understand and collectively achieve the company's strategic goals, and to link the incentive system with the performance of both the supervisor and the overall company. The key performance indicators related to executive compensation and performance evaluation are as follows.

The indicators for executive compensation and performance evaluation

Financial indicators

- Operating profit/EBITDA
- Achievement rate of operational goals
- Operating growth rate
- Profit contribution ratio

Non-Financial indicators

- Environment)(E)：
  Environmental sustainability participation rate, water and energy conservation performance, circular economy benefits, carbon reduction target achievement rate.
- Social (S)：
  Public safety/occupational accidents, product research and development and innovation, community harmony and neighborliness.
- Governance (G)：
  Operational management capability, AI-driven initiatives/ benefits, number of misconduct incidents

Board and Management Compensation.

The remuneration of the board members and executives of NYPCB is first submitted to the Compensation Committee for review, then presented to the Board of Directors for discussion and approval before implementation. According to Article 16 of the Company' s Articles of Incorporation, the board' s remuneration is determined by the Board of Directors based on the level of participation and contribution to the company' s operations, while also considering the general compensation practices of industry peers. Independent directors receive a fixed monthly remuneration and travel allowances based on actual attendance at board meetings. Other directors only receive travel allowances based on actual attendance at board meetings and do not receive additional director' s remuneration.

The remuneration of the general manager, deputy general managers, and other managers is governed by Article 17 of the Company' s Articles of Incorporation and Article 29 of the Company Law. In addition to a fixed monthly salary, they are eligible for performance-based bonuses, including diligence bonuses, year-end bonuses, managerial bonuses, and incentive bonuses, depending on the overall assessment of the company' s performance. Contributions to pension funds (including both old and new pension schemes) and welfare funds are made in accordance with the Company' s retirement policy. In special circumstances, compensation such as severance pay, redundancy payments, and condolence benefits may be provided.Fixed monthly salaries are adjusted annually based on the salary adjustment standards for all employees. The chairman evaluates the overall performance of the managers within their respective responsibilities, including financial and non-financial indicators and the achievement of personal “annual work objectives.” After a comprehensive evaluation, salary adjustments are proposed to the Compensation Committee to ensure that managers understand and align with the company' s strategic goals, and the incentive system is linked to both individual and overall company performance.

For the payment of remuneration to directors and managers in 2024, please refer to the annual report "Remuneration paid to directors (including independent directors), president and vice president in recent years".

Annual Report

The multiple of the highest remuneration in the company over the past three years to the median annual salary of employees, as well as the growth rate of both.

Item	2022	2023	2024
Annual total compensation ratio (Note 1)	9.25	11.91	10.41
Annual percentage increase in total compensation (Note 2)	-31.23 (Note 2)	0.04	1.90 (Note 2)

Note 1: The annual total compensation ratio = Total annual compensation of the highest-paid individual / Median total annual compensation of other employees. Compensation calculation includes base salary, bonuses, and other benefits.

Note 2: Increase in the annual total compensation ratio = Increase in the compensation of the highest paid individual / Increase in the median total annual compensation of all employees (excluding the highest-paid individual).

Note 3: Due to more than 800 employees who have been employed for more than 6 months but less than 1 year in 2022 (annualized), resulting in a decrease in the overall median salary, hence the negative salary growth rate.

Remuneration Policy for Directors and Managers of NYPCB

Object	Distribution Items
 Director (Including independent directors)	• Fixed monthly remuneration (only Including independent directors). • Travel expenses based on their attendance on the Board of Directors. • No remuneration is paid
 Manager (President, Vice President and other managers)	• Fixed monthly salary • Diligence award, year-end bonus, supervisor award, incentive bonus • Monthly allocation of retirement funds (including new and old system retirement funds), welfare funds, etc. according to the company's "Retirement Regulations" • Provision of compensation for special circumstances such as supervisor retirement benefits, severance pay, compassionate payments, etc.
 Non-managerial staff	• Fixed monthly salary • Diligence award, year-end bonus, incentive bonus • Monthly allocation of retirement funds (including new and old system retirement funds), welfare funds, etc. according to the company's "Retirement Regulations" • Provision of compensation for special circumstances such as, severance pay, compassionate payments, etc.

2.1.2 Functional Committee

The primary functions of the committee

Name of the Committee	Audit Committee	Compensation Committee	Sustainability Committee
Establishment Date	June 2017	December 2011	May 2022
Member Composition	3 Independent Directors	3 Independent Directors	Chairman, 3 Independent Directors, and 1 Director
Main function	• Oversee the appropriateness of financial statement presentations. • Evaluate the selection (dismissal) and independence of external auditors. • Monitor the effective implementation of internal controls. • Ensure compliance with relevant laws and regulations, and manage existing or potential risks.	• Evaluate the company's director and manager compensation policies and systems, and provide recommendations to the Board of Directors for decision-making.	• Review the company's sustainable development policies, strategies, and management guidelines. • Monitor the company's initiatives and implementation of sustainable development programs. • Review significant sustainable development information disclosed in the sustainability report and report to the Board of Directors. • Oversee the company's greenhouse gas inventory and verification planning. • Monitor significant issues concerning shareholders, employees, customers, communities, and government bodies. • Handle other matters instructed by the Board ofDirectors.
Meetings in 2024	There were a total of 4 meetings convened, with a 100% attendance rate.	There were a total of 2 meetings convened, with a 100% attendance rate.	There were a total of 2 meetings convened, with a 100% attendance rate.
Major Resolutions in 2024	• Approved the 2023 financial statements. • Approved the financial statements for the • first, second, and third quarters of 2024. • Approved the 2023"Internal Control • System Statement." • Approved the amendment of "Internal Control System" and "Implementation Rules for Internal Audit". • Approved the 2025 Audit Plan. • Approved the negotiation of Credit Limits with Financial Institutions to Meet Operational Needs. • Approved the change of the company’ s external auditor. • Approved the signing of a “Lease Agreement” with Nan Ya Plastics Corporation.	• Approved the salary adjustment for the company’ s managers in 2024, to be implemented at a rate not exceeding that of the employees' salary adjustment.	• Approved the 2023 Sustainability Report. • Reported the verification results of the company’ s greenhouse gas emissions for 2023. • Reported the progress of the company’ s energy and water conservation efforts for both 2023 and 2024.

2.1.3 Integrity in Business (Material Topics)

Integrity in Business

NYPCB has established a "Code of Ethical Conduct for Directors and Managers" to ensure that managers adhere to ethical behavior when conducting business activities on behalf of the company, preventing unethical actions and behaviors that may harm the interests of the company and its shareholders. The company has also adopted an electronic platform for procurement operations, which not only enhances operational efficiency but also ensures the fairness, transparency, and openness of the procurement process, thereby preventing procurement malpractices and creating a win-win situation for both NYPCB and its suppliers.

NYPCB has established a comprehensive audit system to ensure financial transparency and strict compliance with laws and regulations. All relevant audit reports are presented at each board meeting. Additionally, the General Administration Office, jointly established by all companies under Formosa Plastics Group, plays an independent audit role. This setup not only enhances the professionalism and efficiency of the audit process but also leverages its independent position to effectively supervise and ensure compliance. For further details on the company's commitment to ethical business practices and professional conduct, please refer to the "Integrity and Ethical Conduct" section on our official website.

Integrity management and ethical behavior ›

Anti-Corruption

A. Professional Ethics

NYPCB has consistently maintained a rigorous system to ensure that employees do not disclose trade secrets, falsify information, spread rumors, incite work stoppages, or engage in any behavior that violates gender equality in the workplace. Specific measures include the establishment of labor and ethical management policies, along with internal promotion of a 12-character core value statement: "Create Value, Operate with Integrity, Thrive Together."

In 2024, NYPCB's risk assessment results indicated no significant corruption risks. Both the headquarters and two manufacturing sites completed 100% of the assessments, and all related corruption risks were evaluated as zero.

In 2024, NYPCB achieved a 100% completion rate for anti-corruption policy training across all management levels. These policies are also reiterated during festive seasons each year. Additionally, the company conducts annual internal cross-audits on labor ethics, involving random interviews proportional to departmental size. These audits focus on on-site management, shift scheduling, and working hours to better care for frontline employees and eliminate potential corruption risks.

Since 2016, NYPCB has introduced a “Legal Awareness Education” course for engineers and engineering managers to ensure thorough understanding of the corporate regulations and legal liabilities associated with accepting bribes or improper benefits. Furthermore, all staff involved in contracting, procurement, and import/export operations are required to complete the course and sign the Procurement and Contracting Staff Code of Conduct, which defines the professional discipline and ethics expected of these roles to ensure strict legal compliance.

In 2024, NYPCB received zero reports related to anti-corruption policy violations.

Employee Code of Ethics	Item Explanation	Implementation
Refusal of Corruption	Explicit provisions in internal regulations prohibit the acceptance of entertainment or gifts from suppliers. Any employee engaging in embezzlement, misappropriation of public funds, acceptance of bribes, or commissions shall be dismissed.	• Internal regulations explicitly prohibit the acceptance of entertainment or gifts from suppliers. Any employee found engaging in embezzlement, misappropriation of public funds, acceptance of bribes, or commissions shall be dismissed. • Rotation of duties is implemented for all personnel in sales, procurement, finished goods warehousing, supervision, and budgeting roles to prevent improper conduct with suppliers. • Employees found to violate regulations will face immediate disciplinary action. Their immediate supervisory managers will also be subject to appropriate penalties based on the severity of the offense, demonstrating vigilance and maintaining public trust.
Prevention of Malpractice	All personnel in sales, procurement, finished goods warehousing, supervision, and budgeting roles are subject to regular rotation to prevent improper conduct with suppliers.	
Adherence to Discipline	Employees found to violate regulations will face immediate disciplinary action, with their immediate supervisory managers also subject to appropriate penalties based on the severity of the offense, serving as a warning and maintaining public trust.	

Communication and Training Outcomes of NYPCB's Anti-Corruption Policy and Procedures in 2024

Training participants		Communication Channels or Training	Results for 2024
Board of Directors		Educational Training for “Preventing Insider Trading and Handling of Material Non-Public Information”	100% of all board members.
Employees	Management (Junior Executive, Associate Senior Management, Associate Management)	Educational Training for “Preventing Insider Trading and Handling of Material Non-Public Information”	100% of all managements.
		Educational Training for “Integrity in Business” (Including Anti-Corruption and Antitrust Laws)	100% of all managements.
	Staff (Supervisor、frontline staff、new employees)	Educational Training for “Preventing Insider Trading and Handling of Material Non-Public Information”	100% of all staffs.
		Educational Training for “Integrity in Business” (Including Anti-Corruption and Antitrust Laws)	100% of all staffs.

The total number of board members is 9, the total number of management personnel is 311, and the number of grassroots employees is 5,609.

B. Grievance Mechanisms

In accordance with the principles outlined in the Employee Grievance Handling Guidelines, NYPCB has established multiple grievance channels and conducts regular reviews and follow-ups on the resolution and improvement of grievance cases. When handling complaints, the company and designated investigators adhere to principles of fairness and impartiality. Retaliation against complainants is strictly prohibited, and confidentiality must be maintained throughout the process. Any breach of confidentiality will be subject to further disciplinary action.

In 2024, NYPCB received a total of three employee grievance cases. The issues raised involved performance evaluations, job assignments, and infringement of confidentiality. All cases were properly addressed through effective communication, with appropriate responses provided and improvements implemented accordingly.

Summary of Employee Complaint Handling Guidelines and Whistleblower Policy

Main point. 1

Providing diverse reporting channels such as physic al mailboxes, email addresses, and fax lines, and prominently posting notices at the main entrances/ exits of the company to inform employees of these channels for reporting.

Main point. 2

Upon receiving whistleblower reports, dedicated personnel from relevant departments within the company's General Manager's Office are responsible for reviewing, registering, and conducting subsequent investigations into the reported cases.

Main point. 3

Confidentiality Principle: During and after the investigation period, the personnel handling the case are strictly prohibited from disclosing any information to unauthorized individuals. Supervisors at all levels must also maintain confidentiality, and relevant information should be handled and archived in accordance with confidential document protocols to ensure that whistleblowers are not subjected to any improper treatment due to their reports.

Main point. 4

Upon substantiated findings of violations, disciplinary actions are taken in accordance with the company's personnel management regulations, and when necessary, relevant authorities such as the judiciary or prosecution are notified.

2.1.4 Regulatory compliance

NYPCB has consistently upheld the principles of honesty, trust, and legal compliance as its core business philosophy. The company ensures strict adherence to all applicable laws, regulations, directives, and policies across the three key pillars of sustainability: environmental, social, and corporate governance (ESG). NYPCB actively promotes sound corporate governance by establishing relevant compliance policies and implementing corresponding management actions aligned with applicable regulatory standards.
A formal Whistleblower Policy is in place to provide clear channels for reporting any illegal or unethical behavior. All employees, management, and members of the Board of Directors are required to strictly adhere to their duties and comply with all applicable laws and regulations as the foundation for carrying out their responsibilities.
Internally, NYPCB regularly conducts regulatory compliance training sessions and seminars to enhance employee awareness, understanding, and execution of legal requirements.

NYPCB defines a major incident as any regulatory violation resulting in fines exceeding NT$1 million. In the event of a major incident, a task force is established to conduct a thorough investigation. The findings and response measures, including follow-up actions and improvement strategies, are formally reported to the General Manager.
In recent years, no major compliance violations have occurred. For 2024, details regarding the company' s response measures, corrective actions, and follow-up processes for non-major compliance issues are presented in the table below.

Whistleblower Policy

	Number of Penalties	Description	The amount of the fine	In response to improvement	Follow-up actions
Governance	None				
Environment	1	At the Shulin Plant, an administrative oversight occurred in the monthly waste reporting process. Specifically, an error was made in the statistical aggregation of waste code data due to a clerical mistake. This was deemed a violation of the Waste Disposal Act.	NTD 60,000	1. The inaccurate data was immediately verified and corrected. 2. Moving forward, all monthly waste reporting data are cross-checked using the E-Manager reporting platform tool. 3. In June 2024, NYPCB enhanced its internal systems by integrating an automated comparison feature into the waste management ERP system. This function ensures accuracy in submitted data and reduces the risk of human error during manual checks.	Monthly reporting results are submitted to supervisors for review and signature confirmation.
Social	1	The company was found to be in violation of the Labor Standards Act due to the failure to provide full direct wage payments to employees, as required by law.	NTD 20,000	For wage deductions due to employee absenteeism, NYPCB has adopted a revised approach to ensure that salaries are disbursed on the agreed date after necessary deductions, rather than withholding payment entirely. Proactive communication with affected employees is now required in such cases to avoid potential labor disputes stemming from misunderstandings.	Included as a key item in monthly attendance audit checks.

For soliciting opinions on compliance-related matters and organizing integrity-related affairs, internally, there is a team of professional lawyers in the Legal Department of the General Administration Office, while externally, legal consultation is provided by law firms such as HuanYing Law Firm and LiLaw Law Firm. NYPCB's policy strictly prohibits the sale of prohibited or controversial products, and it maintains an objective and neutral stance on public policies, refraining from engaging in any political activities. When facing regulatory challenges, we actively take response measures and improvement strategies to ensure continued compliance with regulations and the sustainable development and social responsibility of the company.

2.2 Operating Risk Management

2.2.1 Risk management and response (Material Topics)

NYPCB's risk management organizational structure and the scope of risk management, please refer to the official website under "Risk Management".

Risk management

The Risk Management Assessment Process

Identification and Evaluation

It is divided into three aspects according to the principle of materiality: environ - ment, society and corporate governance in order to identify risks

Control and Supervision

Formulate internal control procedures and measures regarding risk issues and continue to supervise

Reporting and Disclosure

Report at least once a year to the Board of Directors regarding the status on risk management and disclose the relevant risk manage - ment policies on the official website

Performance Management and Improvement

Follow up and track the results on relevant risk issues and adjust when needed

Scope of Risk Management

Dimension	Risk Items	Risk Management Strategies	Responsible Units	Management Achievements in 2024
Environment	Climate Change	To align with international trends, analyze and assess the risks and opportunities brought about by climate change. Demonstrate the company's responsibility and strategy, more effectively allocate capital, and aim for the vision of a low-carbon economy transformation. Annually disclose the Task Force on Climate-related Financial Disclosures (TCFD) report.	• Health and Safety Department	The company invested NT$108.33 million to address climate-related risks and opportunities, including the installation of solar power systems and setting SBTi carbon reduction goals.
	Water Resource Management	1. Promote energy-saving and water-saving improvements to reduce energy consumption and purchased water. 2. Install alkaline and neutral water recycling systems and further expand wastewater recovery operations across the entire plant to reduce raw water consumption in the pure water production system. 3. Evaluate the introduction of recycled water systems to increase water supply sources.	• Utility Department	1. Completed 26 water reduction projects, reducing water consumption by 0.33 million liters per day, resulting in an annual benefit of NT$3.058 million. 2. The total volume of wastewater recovery at the Jinxing and Shulin plants was 1.612 billion liters/day, an increase of 18.9% compared to last year. 3. The Jinxing plant introduced 383 million liters/year of recycled water, adding a new water source.
	Gas Emission Management	1. Hold regular monthly energy management meetings to improve energy-saving and carbon reduction technologies. 2. Set short, medium, and long-term carbon emission reduction targets and continuously implement energy-saving measures to improve energy efficiency.	• Health and Safety Department, • Utility Department, • Factory	Completed 97 energy-saving projects, reducing CO_2e emissions by 7,873 tons per day, resulting in an annual benefit of NT$22.1 million.

Dimension	Risk Items	Risk Management Strategies	Responsible Units	Management Achievements in 2024
Environment	Energy Management	1. Set annual environmental management goals and objectives, with a proposal reward system to promote energy use efficiency reviews and improvements across departments. 2. Establish an energy management organization to oversee operations, hold monthly energy management meetings, and conduct internal energy-saving audits. 3. Continue to replace outdated public equipment and improve the energy efficiency of process equipment.	• Health and Safety Department, • Utility Department, • Factory	Completed 97 energy-saving projects, saving 23,294.7 kWh per day, with an annual benefit of NT$22.1 million.
	Air Pollution Management	Implement regular inspections and maintenance to ensure all equipment operates at optimal performance.	• Health and Safety Department, Factory	Zero air pollution-related environmental fines.
	Waste Management	1. Promote waste reduction initiatives and maximize the effective use of recyclable resources. In addition to setting up recycling stations for resource waste within the plant, continuous process and operational improvements are made. 2. Prioritize waste reduction at the source, followed by recycling, and then promote waste classification and reuse to enable the cyclical use of resources.	• Health and Safety Department, • Factory	1. Waste per unit output that was not recycled was 0.0424 tons/million, a 1.6% reduction compared to last year. 2. The Jinxing plant implemented waste disposal treatment certification, with 99% of the total waste volume reused through zero landfilling methods (including 6% incineration with energy recovery).
Social	Human Rights	1. The General Manager signs the Human Rights Policy, adhering to international human rights standards and the labor regulations of the locations where global operations are based. 2. Committed to providing an equal employment environment free from discrimination and harassment. 3. Respecting individual privacy rights.	• HR • Department	In 2024, there were 3 human rights-related complaints filed through official grievance channels, all of which have been properly handled.
	Talent Recruitment and Development	1. Utilizing diverse and public recruitment channels, actively participating in campus activities, offering summer internships, industry-academic collaborations, and government-funded student programs to enhance recruitment efficiency and attract talent. 2. Providing stable and competitive compensation and benefits. 3. Offering comprehensive training programs, encouraging employees to obtain certifications or professional credentials. 4. Providing reasonable and transparent promotion channels for outstanding performers.	• HR • Department	1. In 2024, participated in 2 recruitment events. 2. In 2024, hired 9 individuals through industry-academic collaboration with Ming Chih University of Technology, Chang Gung University, and Longhua University of Science and Technology.
	Occupational Safety and Health	1. Based on the principles of zero workplace injuries, zero accidents, and zero risks, providing employees with a work environment that exceeds legal safety and health standards. 2. Encouraging all levels of management and employees to actively participate, raise safety awareness, and eliminate potential risks.	• Health and Safety Department	In 2024, 16 new improvement measures were implemented, 6 of which have been completed, with 10 ongoing and under follow-up.

Dimension	Risk Items	Risk Management Strategies	Responsible Units	Management Achievements in 2024
Social	Social Engagement and Contribution	1. Upholding the spirit of "giving back to society what we take from society," committed to contributing to the community and fulfilling social responsibilities. 2. Encouraging employees to actively participate in various community-building activities, deepening interactions with local residents.	• Management Department	1. Assisted Longxing Village, Dongshan Village, and Shanjia Village senior centers and disadvantaged residents in applying for meal assistance, benefiting 1,250 people with a total contribution of approximately NT$379,000. 2. Sponsored community events with a total amount of NT$657,000. 3. Organized 12 street-cleaning environmental volunteer activities at the Jinxing Plant, with 350 volunteer service participations. 4. Held 17 Ren'ai service activities to care for the elderly, disadvantaged families, and raise funds for institutions such as the Tingfang Intellectual Disabilities Care Center, Practice Zen Heart Association, Charitable Association, and funeral costs for disadvantaged families. A total of 3,070 people participated, with donations totaling approximately NT$574,000.
Corporate Governance	Strategic Operations	With the goal of sustainable business operations, the company continues to develop high-value and differentiated products, enhance research and development and innovation, improve product quality, and continuously optimize processes using AI and digital transformation. The company is also expanding into new sustainable industries to improve operational performance, competitiveness, and reduce operational risks	• Management • Analysis Team	Weekly meetings are held to review and assess the company's operational status, including various risk issues, and formulate strategies.
	Integrity Business	Establish various ethical conduct regulations and create strong corporate governance and risk management mechanisms. The company evaluates the risks of unethical behavior and formulates relevant preventive measures to implement the integrity business policy.	• Management • Analysis Team	1. Conduct training on "Preventing Insider Trading" and "Handling of Material Non-Public Information" for employees and directors. 2. Ongoing training for all employees and periodic training for directors on the prohibition of trading company stock during the closed period, which is 30 days before the announcement of the annual financial report and 15 days before the quarterly financial report announcement.
	Information Security	The company has established information security management policies, appointed a Chief Information Security Officer (CISO), and set up a dedicated information security management team to ensure the appropriateness and effectiveness of information security operations.	• Information Security Team	1. Conducted training courses on "AEO Quality Enterprise Employee Safety Awareness" and "Information Security Education and Training." 2. Carried out email social engineering drills, providing immediate education and re-certification for personnel who mistakenly opened emails or clicked on links. 3. The Information Security Management System was certified for ISO 27001 in March 2025.
	Legal Compliance	Through the establishment of governance structures and the implementation of internal controls, the company strictly requires compliance with legal regulations in its operations, and keeps abreast of and responds to changes in policies and regulations. In addition, the company has set up a dedicated legal department, established contract templates, and conducted legal compliance training to mitigate legal risks.	• Management • Analysis Team	1. Amended the "Internal Control System" and "Internal Audit Implementation Guidelines." 2. Provided legal compliance training and established clear reporting channels. 3. Implemented self-checks and internal audit operations across departments to prevent fraud and reduce the occurrence of risks.
	Customer Relationship Management	Establish long-term partnerships with industry clients, respond to their needs, and enhance their satisfaction.	• Sales Department	The customer satisfaction survey for 2024 shows a rating of (A), an improvement from (A-) in 2023. The overall performance indicates that the company' s customer satisfaction meets customer expectations.

2.2.2 Information Security

In 2024, NYPCB no leaks of personal information, violations of privacy rights, or leaks of customer information. The company fully manages the storage, inspection, authorization, distribution, recycling and destruction of various information such as research and development, production, manufacturing, sales, technical cooperation, negotiation, outsourcing, operation and management according to the confidentiality level set by the company, to protect and fulfill the rights and commitments to partners and customers.

Information Security Management Strategy

We keep up with the times and continue to improve the security of information technology. Under the three principles of confidentiality, integrity and availability, we strengthen and ensure the security of various information, systems and networks to build Reliable information environment.

Information Security Management Principles	Management Key	Specific Practices	Implementation Results in 2024
Confidentiality	Information System Software Access Control	The company has management measures to regulate information access management, including computer use rights and information protection procedures, and its scope of authority includes users Internet access, mail account, information system, file server related information acquisition and authority management, etc	• Information security operation publicity：5,920 people. • Import multi-factor authentication (MFA) mechanism for external VPN connections. • USB device authentication and authorization mechanism • Information system access follows the principle of least privilege.
Integrity	Information system backup drills	• Regularly every year execute backup drills for host and equipment abnormalities to ensure the integrity and feasibility of backup procedures demand processing y If there is a need for temporary backup or restore of each application system, the applicant shall apply according to the procedure, and after approval by the supervisor of the demand.	Server backup switching time average: • Automatic switching: 10 minutes (within) • Manual switching: 30 minutes (within)
Availability	Entity and environmental safety	• The computer room is equipped with an uninterruptible power supply system, which is regularly inspected and tested by maintenance personnel or outsourced manufacturers according to the UPS maintenance cycle. • Computer room equipped with temperature and humidity measuring instruments, water leakage detection alarms, smoke detectors, fire extinguishers, fire alarms and fire alarm reception switchboards to ensure the safety of maintenance and operation of the computer room, to ensure proper system operation.	The data center is equipped with real-time monitoring of various measurement instruments, such as temperature, humidity, and fire detection. The equipment undergoes regular maintenance and inspection tests every year, and annual holiday breaks include uninterrupted power supply (UPS) switch exercises to ensure the system operates smoothly.
	Anti-virus management and vulnerability detection	• All computers in the network are equipped with anti-virus software, and the centralized management center monitors the situation of computer poisoning and virus code updates • Windows security updates are automatic updates, and the host sends Windows security update files uniformly to fix known loopholes. For machine manufacturers, when updating the program of the machine computer in the factory area, it is necessary to clean the installation program storage medium (USB or hard disk, etc.) before it is allowed to connect to the company network. • Regularly scan the host system every year, aim at patch management integration and vulnerability analysis, find out potential risks of the system, and reduce network threats and the probability of hosts	• Graylog monitoring security alerts (real-time) • Deployment of antivirus software on 2,680 devices(Jingshin Plant:2,050 devices; Shulin Plant:630 devices) controlled by the antivirus management center in real-time. • Daily antivirus code updates for the antivirus software. • Monthly Windows security updates for host systems and customer computers. • Sharing of pre-warning alerts from external cybersecurity organizations such as TWCERT to enhance proactive defense. • Vulnerability scanning and patching of host systems every 6 months. • Social engineering exercises for email security twice of a year. • Conducting red team exercises to simulate cybersecurity attacks, identify system vulnerabilities, and improve security measures every year.
	Product data security risk	NYPCB products are not terminal products, and are designed and produced according to customer product design specifications, so there is no product data risk	

2.3 Internal Control

2.3.1 Internal Control Operation

Operational structure

NYPCB fully promote computerization across all operational processes. The six major management functions — human resources, finance, business, production, manufacture, and engineering — should be interconnected by computers to enable trench auditing layer by layer as well as abnormality management. NYPCB has also established a professional and independent internal audit operation structure, which is divided into three levels:

Level 1

The internal audit office, which is subordinate to the Board of Directors, is responsible for executing the internal audit tasks.

Level 2

The corporate general management office conducts regular and professional independent audits.

Level 3

Each department of the company performs autonomous business inspections periodically.

Prevention of Insider Trading Management

To prevent improper disclosure of material non-public information that may affect the company's stock price, and to ensure compliance with insider trading regulations by all employees of NYPCB, the NYPCB Insider Trading Prevention Management Guidelines have been established in accordance with Article 8 of the "Guidelines for Establishing Internal Control Systems for Publicly Issued Companies." These guidelines are incorporated into NYPCB's internal control system to ensure the implementation of insider trading prevention management.

Confidentiality of Daily Operations

NYPCB's directors, managers, employees, and consultants shall conduct their business with due care of a prudent person and fidelity to the principles of honesty and integrity. They shall sign confidentiality agreements and refrain from disclosing any material non-public information known to them to any third party before it is officially disclosed by NYPCB.

Internal Reporting Procedure

- If directors, managers, employees, or consultants of NYPCB become aware of any unauthorized disclosure of material nonpublic information, they shall promptly report it to the internal audit department.
- Upon receiving such reports or discovering any unauthorized disclosure of material non-public information, the internal audit department shall consult with relevant departments to devise appropriate measures and record the outcomes for future reference.

2.3.2 Internal Audit Operations

The internal audit office is under the Board of Directors and hires full-time internal auditors. Internal auditors are required to attend relevant audit-related courses organized by professional training institutions every year to continuously enhance their professional capabilities.For more information about the organization and operations of the internal audit department at NYPCB, please refer to the "Internal Audit Organization and Operations" section on the official website.

Internal Audit Organization and Operation >

Internal Audit Training Overview for the Year 2024

Number of Trainees: 4

Total Training Hours: 48

List of Training Courses

1. Introduction to the construction of information security for listed companies and audit seminars.
2. Analysis of sustainable information disclosure, management policies, and related audit key points.

The operation of internal audits in the past three years is as follows

	2022	2023	2024
Audit Plan Reporting Items	41	42	42
Routine Items	39	40	39
Proposed Recommendations	2	2	3
Actual Achievement Rate	100%	100%	100%

2.3.3 Employee Behavior and Ethics

NYPCB has established "Work Rules" to clearly define the rights and obligations of both labor and management, as well as to maintain employment order in the workplace. These rules have been publicly disclosed after being approved by the competent authority, providing guidelines for the management of NYPCB employees. The work rules cover various aspects including appointment and transfer of colleagues, working hours, wages, disciplinary measures, dismissal, termination, retirement, training and assessment, compensation and benefits for occupational injuries and illnesses, as well as welfare measures, all of which are clearly defined.

Furthermore, there is a reinforced focus on the conduct and ethical standards of company executives. Engineers and managers, including senior executives, are required to sign the "NYPCB Employee Compliance with Operational Policies Statement." The key points of this statement are as follows:

Item	Description
Prohibition of Unfair Competition (Antitrust Policy)	Employees are required to fully comply with the provisions of the Fair Trade Act, encourage profitmaking through legal and legitimate means, and ensure that all actions are in accordance with relevant laws. In 2024, the company had no legal disputes related to anticompetitive behavior, antitrust, or monopoly practices.
Conflict of Interest Policy	Employees are required to safeguard the interests of the company when engaging in business activities and must not compromise the company's interests. Employees are prohibited from directly or indirectly soliciting gifts, entertainment, or other benefits from any suppliers, customers, or competitors of the company. Likewise, employees are not allowed to accept any improper gifts, entertainment, or other benefits from such parties.
Internal Data	Employees are prohibited from disclosing confidential company information or any other undisclosed information without written permission from the company. Such information shall not be used for personal gain or any purposes unrelated to the company's business. Upon termination of employment, employees are required to return all personally held technical data related to the company.
Political Activity Policy	Employees are prohibited from making donations to any candidates, political parties, or engaging in activities prohibited by relevant laws and regulations, using company funds, services, or other valuable assets directly or indirectly. Employees are also prohibited from offering improper benefits to politicians, government officials, or other public figures to avoid influencing their duties.
Code of Business Conduct	NYPCB adopted the "Code of Business Conduct" on November 11, 2014, following a decision by the board of directors. Although the code has been slightly revised in practice, the principles set forth in the code are consistent with those outlined in the " Ethical Corporate Management Best Practice Principles for TWSE/TPEx Listed Companies."

2.4 Customers

2.4.1 Customer Service

NYPCB has always been a trustworthy business partner who has grown side by side with its business partners. To enhance customer service, we are not only providing products with quality that exceeds customer expectation, but also establishing an outstanding communication system to provide timely responses to customer requests, and to ensure on time delivery of shipments.

Furthermore, in the aspect of understanding customers' valuable feedback, sales team visit customers regularly to communicate and exchange opinions to obtain information about the latest product in the market. Those feedback will be taken into consideration of the company's operation.

We follow ISO 9001 quality management guidelines for customer relationship management. For complaint handling, the standard response time is within 7 days, and issues should be processed and closed promptly. In 2024, a total of 9 customer complaints were received, mainly related to product quality. All complaints were handled and closed in a timely manner.

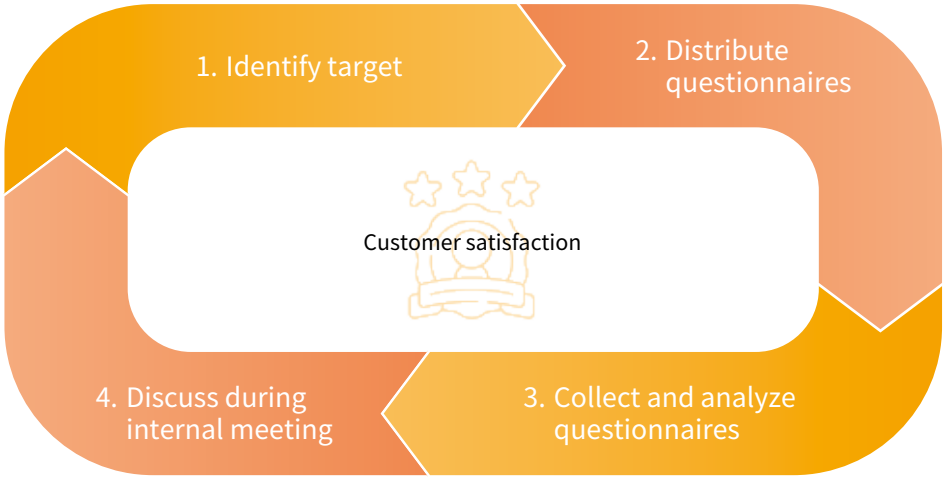
Quality complaints process

2.4.2 Customer satisfaction surveys

NYPCB regularly conducts customer satisfaction surveys to collect the indicators such as technology, quality, response, delivery, and cost. Each individual department would communicate with customers regarding items that scored poorly and propose improvement plans to customers based on the analysis results in order to raise customer satisfaction.

We dedicate the improvements of internal production process and operations as well as customer satisfaction with PDCA (Plan,Do, Check and Action) management model in all activities to ensure all departments have a common principle to follow.

Customer Satisfaction Process



Customer Satisfaction Questionnaire:

Please refer to the customer satisfaction survey results over the past three years.Compared to 2023, the results in 2024 have improved. Overall, they indicate that the company' s customer satisfaction meets customer expectations.

Item	2022 年	2023 年	2024 年
Technology(T)	A	A	A
Quality(Q)	A	A-	A
Response(R)	A	A	A+
Delivery(D)	A-	A	A
Cost(C)	A-	A-	A-

Note 1: Rating Criteria

- Excellent: A+ (93–100 points)
- Exceeds Expectations: A (85–<93 points)
- Meets Expectations: A– (76–<85 points)
- Conditionally Acceptable: B (70–<76 points)
- Dissatisfied: C (60–<70 points)
- Unacceptable: D (<60 points)

2.4.3 Fair and reciprocal principles

Based on our business values of integrity and reciprocity, our company is personally led by the senior management. From contract establishment, qualification, manufacturing, marketing, customer service to customer complaint handling, we apply this principle to all our customers. At the same time, we also strictly follow the international quality standards to provide our customers with fast service and good quality. Actual measures taken are provided below:

Provide educational training to employees regularly to ensure understanding customer needs and related regulations. Before selling the product, we will communicate with our customers on product design and relevant risk to provide the most suitable products.

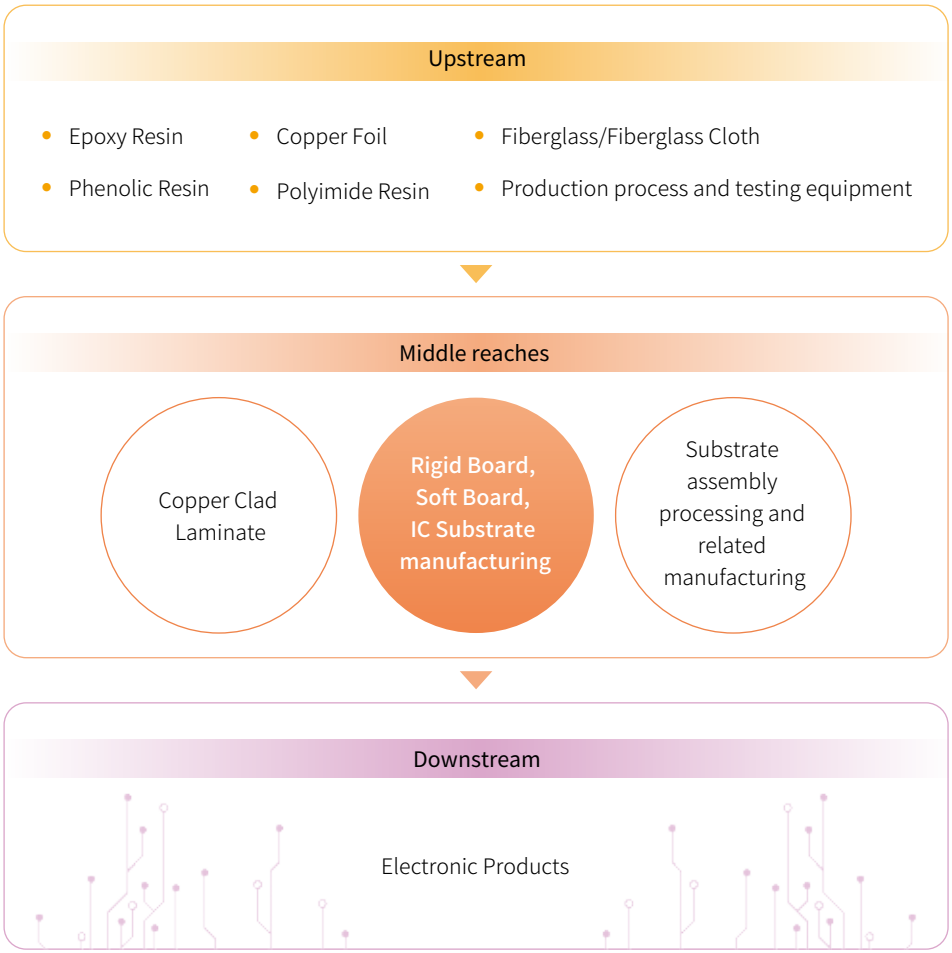
Business and customer service units are required to collect information related to customer satisfaction on TQRDC (technology, quality, response, delivery, and cost). These units are also asked to discuss such issues and improvement measures with the relevant manager. Through a dedicated counseling window, the company's official website and multiple complaint channels, our customer's rights are fully secured.

Internal and external supervision and operations are regularly carried out to ensure the implementation of company policy as well as fair and reciprocal principles.

2.5 Supplier and Contractor Management

2.5.1 Supplier and Contractor Management

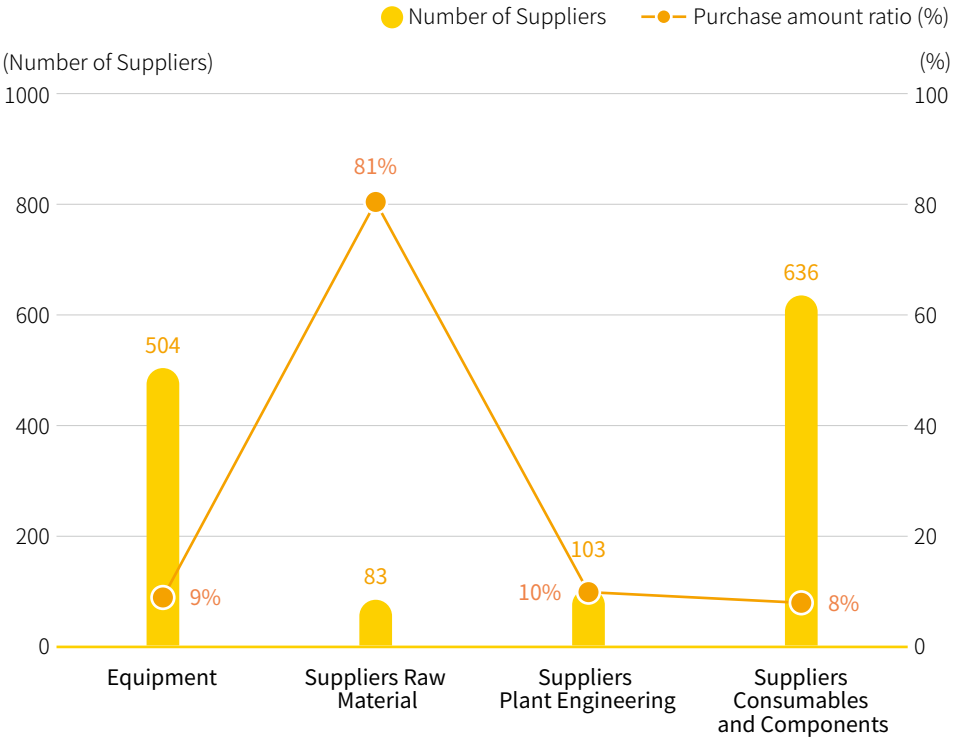
NYPCB' s Supply Chain



Explanation: The percentage distribution of upstream raw materials in NYPCB's products is approximately 30% for Copper Foil, 10~15% for Insulation Material, and the remainder is related chemicals and consumables.

Supplier Composition Overview

In 2024, NYPCB collaborated with approximately 1326 suppliers, of which 94% were local procurement suppliers, accounting for 60% of the total procurement amount.

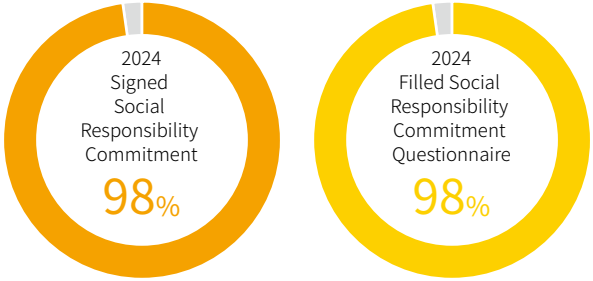


Category	Equipment	Suppliers Raw Material	Suppliers Plant Engineering	Suppliers Consumables and Components	Total
Number of Suppliers	504	83	103	636	1,326
Purchase amount ratio (%)	9%	81%	10%	8%	100%

Management Overview

NYPCB's procurement process follows the "open bidding" approach through the FORMOSA TECHNOLOGY E-MARKET PLACE, providing online inquiry, quotation, negotiation, order placement, and delivery operations with trading partners.

NYPCB has always considered suppliers as partners and is committed to guiding long-term cooperation to establish a stable and sustainable supply chain. Since October 1, 2019, "Supplier/Contractor Social Responsibility Commitment Form" and "Supplier/Contractor Social Responsibility Questionnaire" have been progressively introduced. Suppliers are required to sign and comply with relevant regulations upon logging into the FORMOSA TECHNOLOGY E-MARKET PLACE. In 2024, there were 1,056 domestic suppliers involved in procurement transactions. Among them, 1,039 suppliers had signed the Corporate Social Responsibility (CSR) Commitment Letter, achieving a response rate of 98.4%. Additionally, 1,034 suppliers completed the “CSR Commitment Letter Questionnaire,” with a response rate of 97.9%. Currently, external suppliers are not yet required to sign related documents or complete the questionnaire.



Supplier/Contractor Management Overview

	2022	2023	2024
Number of Trading Firms	814	737	1,056
Signed Social Responsibility Commitment(%)	65%	89%	98%
Filled Social Responsibility Commitment Questionnaire(%)	98%	98%	98%

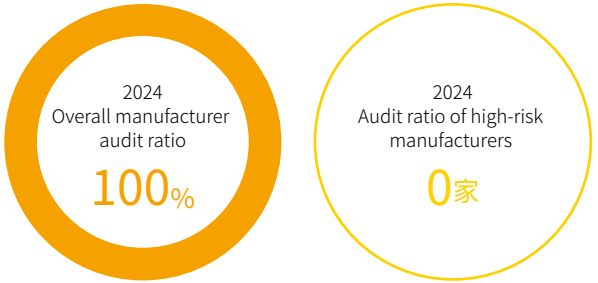
2.5.2 Supplier and Contractor Evaluation and Grading

Supplier Evaluation, Audit, and Counseling

NYPCB regularly conducts supplier evaluations with key suppliers' top management. New suppliers are required to pass ISO 9001:2015 Quality Management System and ISO 14001:2015 Environmental Management System verification, and are evaluated based on comprehensive criteria such as technical capability (T), quality (Q), service (R), delivery (D), price (C), and environment (E) to assess their suitability for the supply chain. Qualified new suppliers are required to sign the "Taiwan Plastics Corporation Supplier/Contractor Corporate Social Responsibility Requirements and Commitment Form" during transactions.

Quality System Audits

NYPCB conducts annual visits to its major suppliers according to the yearly plan and conducts quality system audits. The goal is to audit over 80% of them within two years. In 2024, it planned to audit a total of 12 major suppliers. All 12 audits were completed, achieving a 100% audit completion rate. There were no high-risk suppliers identified, and there were no significant audit findings. Any other audit deficiencies have been fully addressed and improved.



Audit status of Major Suppliers

Year	2022	2023	2024
Overall manufacturer audit ratio (Note 1)	100%	100%	100%
Audit ratio of high-risk manufacturers (Note 2)	NA	NA	NA

Note 1: Overall Supplier Audit Rate = Number of Audited Suppliers / Total Number of Major Suppliers
Note 2: High-Risk Supplier Audit Rate = Number of Audited Suppliers / Number of High-Risk Suppliers

Supplier Evaluation Item

The audit process begins with suppliers conducting a self-assessment evaluation followed by an on-site audit. Audit items include the execution status of quality systems, human rights and labor conditions, environmental safety, green partnerships, and compliance with RBA and relevant environmental regulations. In case of audit failure, South Electric requests suppliers to develop improvement plans and provides necessary assistance.

Supplier Evaluation Item

Supplier Environmental and Safety System Evaluation Form

A. Health and Safety
B. Environment
C. Management System

Supplier Personnel System Evaluation Form

A. Freedom of Employment
B. No Child Labor
C. Working Hours
D. Wages and Benefits
E. Humane Treatment
F. Non-Discrimination
G. Freedom of Association
H. Management System
I. Code of Conduct

Supplier Green Product Audit Checklist

- No Harmful Substance Management System
- Internal Audit and Management Review
- Design and Change Management
- Purchase and Material Inward Management
- Corrective and Preventive Actions
- Warehouse and Production Management
- Shipping Control
- Education and Training
- Document and Record Management

Supplier Complaint Mechanism

The company's electronic trading market has a dedicated customer service center that provides suppliers with 24-hour comprehensive consultation services regarding software operations on the platform and other inquiries related to the company. Furthermore, a response and complaint platform has been established within the electronic trading market system, and responses received are promptly addressed and replied to by the Group's General Management Office.

Based on statistics from the FPG's electronic trading market system, In 2024, a total of 106 supplier feedback cases were recorded, categorized as follows:
a. Inquiries regarding procurement cases:20% / b. System issues :3% / c. Issues related to suspension of inquiries :2% / d. Revisions to procurement cases :1% / e. Complaints : 2% /f. Delivery and payment issues : 47% / g. Other issues: 25%. Inquiries were suspended in cases where the number of quality defects reached two or more and the defect rate was 40% or higher. As a result, the supplier was suspended from inquiries for one month. After confirmation of improvement in the following month, the suspension was lifted.

For supplier safety management, please refer to section 4.5 Occupational Safety and Health in this report.

Contractor Grading Management

1. The contractor submits an application.

2. NYPCB review:

- Written evaluation and review by Formosa Plastics Group's Contracting Center, with on-site evaluation if necessary.
- Contractors are added to the approved vendor list only after passing the evaluation and being documented.

3. Issues arising during **the contractor's** construction process:

delivery (project) delays, poor quality, violations of safety and environmental regulations.

4. NYPCB evaluation:

- Upon contractor confirmation, details are entered into the system, which automatically includes the contractor in the evaluation mechanism.
- Monthly system evaluations with scores ≤74 result in the contractor being suspended from further transactions.

NYPCB has established a grading management system for contractors to strengthen safety management measures, control the quality of contracted work, and enhance the occupational safety standards of contractors to prevent work-related injuries to their employees. Various types of professional engineering contractors are classified into A, B, and C levels based on their contracting capabilities, technical achievements, and records. The relevant information, investigation, and evaluation of their plant construction sites, construction equipment, site safety management, technical capabilities, and contracting performance are handled by the Procurement Center of the General Management Office.

Selection Criteria	Vendor Construction Evaluation (Regulation No. E00009-2)
Evaluation Items	• Construction Quality Management • Occupational Health and Safety Management • Weekly checking of construction materials management according to occupational health and safety checklists • Transport Vehicle Management • Access Control Management • Overdue Improvement • Completion Delay: Construction progress delays resulting in less than 7 days of delay will not result in point deduction, 7-13 days of delay will deduct 3 points, 14-30 days of delay will deduct 7 points, and delays exceeding 30 days will result in a score of 0.
Evaluation Grades	A-C (Three Grades)

Grading	Corresponding Measures
A Grade	>90 points, eligible for rewards
B Grade	General Management
C Grade	<74 points, subject to counseling

In 2024, all contractors completed the evaluation process in full compliance with the regulations, achieving a 100% completion rate. The results are shown in the table below. Overall, contractor performance was satisfactory, with no contractors rated as Grade B or C.

Contractor Evaluation Grading Overview

Grading	2022	2023	2024
A Grade	216	235	256
B Grade	0	0	0
C Grade	0	0	0

2.5.3 Supply Chain Issues

Critical Raw Material Procurement

For critical suppliers with exclusive or single-source suppliers, NYPCB requires them to establish and update Business Continuity Plans (BCP) annually. The company appropriately controls emergency response plans and requires suppliers to conduct annual self-risk assessments

Key Supplier Classification

- Sole Source: Exclusive supplier in the world.
- Single Source: Two or more suppliers with industry experience can provide the material, but only one supplier is certified for strategic considerations.

Business Continuity Plan (BCP) Overview

Business Continuity Plan (BCP) and Risk Assessment Operation:

- Each year in the first quarter, the Materials team conducts regular updates of the annual Business Continuity Plan (BCP) for the previous year's Sole/Single Source suppliers.
- In the second quarter of each year, the supply chain risk assessment is completed.

Emergency Response Plan Overview

Develop a comprehensive Business Continuity Management system that combines preventive and recovery control measures and procedures. This system aims to reduce operational disruptions caused by natural disasters, accidents, unforeseen events, or management deficiencies to an acceptable level and ensure the company's rapid recovery for sustainable development

Annual Self-Risk Assessment Results

In 2024, the Business Continuity Plan (BCP) was implemented, and the results were as follows:

- A total of 23 suppliers conducted self-risk assessments.There were no high-risk suppliers identified.One supplier was categorized as a medium-risk supplier.
- Emergency response investigations for BCP:10 occurrences (9 natural disasters such as blizzards, typhoons, earthquakes, and 1 occurrence due to man-made factors such as a factory fire), with no impact on key material supplies.

Conflict Minerals Management

In terms of conflict mineral management, NYPCB requires all relevant suppliers to cooperate and commit to banning "metal mineral sources from conflict areas." All relevant suppliers must disclose the information of their smelters in order to pass new material certification and be able to trade. For disclosed information For those that are incomplete or come from non-qualified smelters, NYPCB continues to require suppliers to improve and does not rule out finding alternatives. In addition, NYPCB also actively encourages smelters in the supply chain to participate in the Responsible Minerals Assurance Process (RMAP) and be certified as qualified smelters by a third-party impartial organization. In 2024, a total of 14 smelters in the supply chain will participate in RMAP and obtain third-party certification, accounting for 100% of the overall smelters in the supply chain.

2.5.4 Local Procurement

NYPCB actively promotes and implements local material procurement to reduce unnecessary air and sea transportation costs and the associated carbon footprint. Over the past tree years, the proportion of internal and external purchases, both in terms of the number of suppliers and the amount spent, is shown in the table below:

Overview

Procurement Category	2022		2023		2024	
	Internal	External	Internal	External	Internal	External
Supplier ratio (%)	93%	7%	93%	7%	94%	6%
Supplier amount ratio (%)	53%	47%	52%	48%	60%	40%

Note 1: "Internal purchase" refers to suppliers and corresponding purchase amounts within Taiwan, while "external purchase" refers to suppliers and purchase amounts outside Taiwan.

Note 2: Main customers designate high-end products that still require imported raw materials from foreign countries.

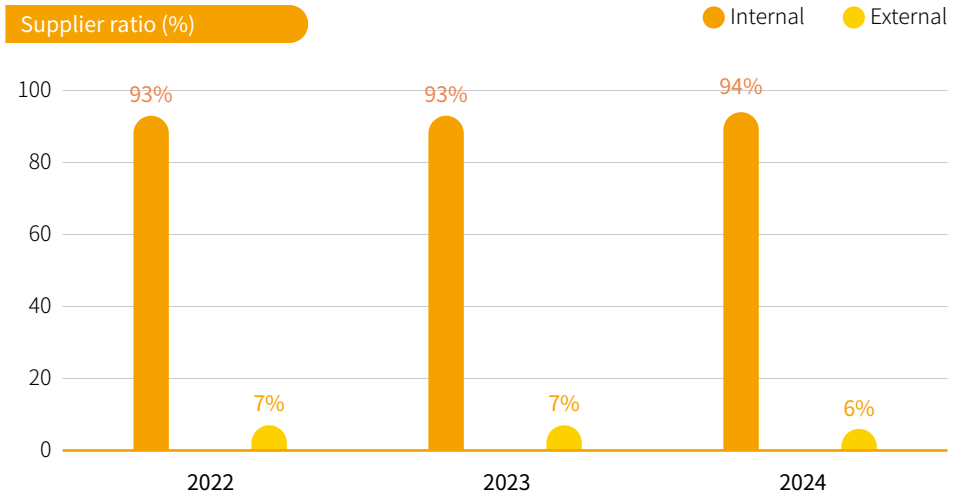
Note 3: Supplier ratio (%) = for each procurement category number of suppliers/total number of suppliers

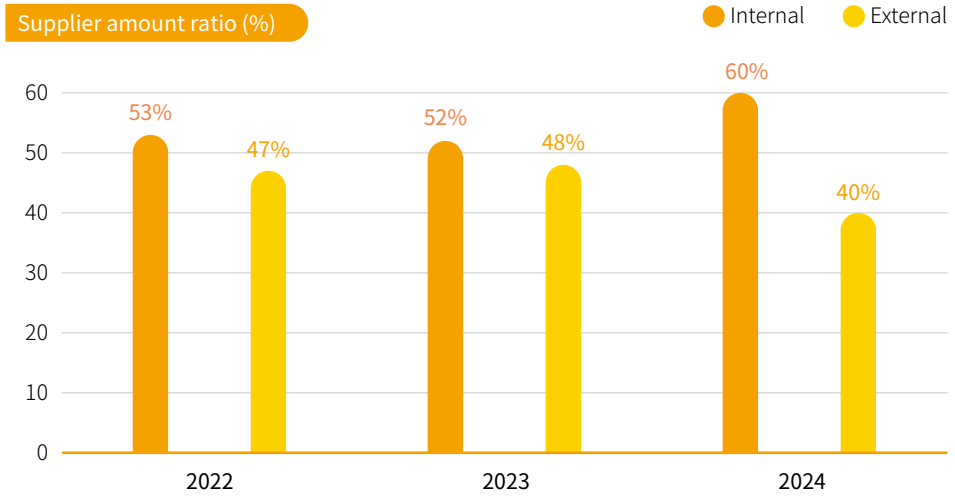
Note 4: "Supplier amount ratio (%) = for each procurement category amount spent on suppliers/ total procurement amount.

Using products with eco-labels can reduce resource consumption, lower environmental pollution, and minimize the impact on the planet. Since 2007, the Environmental Protection Administration (EPA) has vigorously promoted the policy of corporate group procurement of green products. Due to the substantial procurement amount of the FPG, it not only aligns with the EPA's green procurement policy but also embodies the environmental concept of "recyclable, low pollution, and resource-saving." Moreover, it drives suppliers to actively develop green products and enhances the production level of green products in our country.

In response, NYPCB has established a Green Procurement Policy. Currently, the primary green products procured include Type I eco-labeled products (recycled products), Type III eco-labeled products (green building materials), LED tubes, flat panel lights, and other environmentally friendly items.

In 2024, the total procurement amount for government-recognized green products reached NTD 6.87 million.





3

chapter

Environmental Friendliness

Vision

Nan Ya PCB continues to promote energy conservation, carbon reduction, and circular economy practices. By integrating energy and resources across different plants, the company aims to enhance energy efficiency. While striving to be environmentally friendly, it also seeks to boost industrial competitiveness, achieve the vision of net-zero carbon emissions, and jointly create a sustainable future.

Policies and Commitments

Nan Ya PCB has established an "Environmental, Health, and Safety (EHS) Policy." Each year, the company sets EHS management goals, which are approved by the General Manager to ensure alignment with operational strategies. Environmental and safety management plans are then implemented accordingly. The policy's relevance and execution effectiveness are reviewed regularly to drive continuous improvement and achieve environmental sustainability.

Material Topics

Climate Change Mitigation and Adaptation

International Frameworks and Indicators

- 201-2 Financial Impacts of Climate Change and Other Risks and Opportunities
- 305 Emissions
- Detailed Goals 3.9、12.4、13.1

Definition Nan Ya PCB mitigates the operational risks of climate change through both mitigation and adaptation strategies. These include management measures for key indicators such as greenhouse gas (GHG) emissions during operations, as well as the establishment of carbon reduction targets aligned with the Ministry of Environment's voluntary carbon reduction initiatives.

Management Actions	2024 Action Performance Tracking	Achievement Overview	Short-term Goals (1-3 Years)	Mid-to-Long-term Goals (3+ Years)
Approved by the Science Based Targets initiative (SBTi), Nan Ya PCB has set science-based emission reduction targets using 2020 as the base year.	1. Conducted organizational-level greenhouse gas inventory in accordance with ISO 14064-1:2018. 2. Total GHG emissions were 354,747 metric tons of CO_2e, representing a 2% reduction compared to the previous year. 3. A reduction roadmap was developed based on the SBT (Science Based Targets), and 2024 emissions are projected to be below the target value.	Achieved Target	1. A 2% reduction in greenhouse gas emissions is targeted for 2025. 2. A 3% reduction in greenhouse gas emissions is targeted annually for 2026-2027.	A 3% reduction in greenhouse gas emissions is targeted annually from 2027 to 2030.
Increase the use of solar photovoltaic systems to reduce greenhouse gas emissions.	The solar photovoltaic system was launched in 2023, and in 2024, it generated a total of 387,000 kWh of renewable energy.	Achieved Target	Expand the construction of the second phase of the solar power project, with the goal of completion by the end of 2026. Upon completion, the annual solar power generation is expected to reach 1.02 million kilowatt-hours, reducing carbon dioxide emissions by approximately 503.9 metric tons.	Annually, 1.35 million kWh of solar photovoltaic energy is used.
Implement the use of green energy to reduce greenhouse gas emissions.	The original plan was to implement green energy by October 2024. However, due to high demand and limited supply in the green energy market, the procurement timeline was impacted. The implementation is now expected to take place in January 2025.	Not Achieved Target	In January 2025, 9.21 million kWh of green energy will be used.	From 2026 to 2030, 18.75 million kWh of green energy will be used annually.
Implement energy management measures and commit to energy-saving improvement activities.	A total of 97 energy-saving projects have been completed, resulting in a daily reduction of 23,294.7 kWh and an annual benefit of 22.1 million NTD.	Achieved Target	Responding to the government's "Industry Greenhouse Gas Reduction Information Platform," energy-saving and carbon reduction projects have been submitted.	Continuously promoting energy-saving operations and participating in external assessments to improve energy-saving technologies and effectiveness.

Stakeholder Groups	Consultation Channels	Consultation Outcomes
Customers	• Occasionally responding to customer requests for the "Supplier Survey" from Nan Ya PCB. • Occasionally providing greenhouse gas emission management data and product carbon footprint information for the plant as requested by customers.	• In 2024, 21 customer supplier surveys were responded to. Proactively conducting greenhouse gas inventories and air pollution monitoring to provide relevant data to customers.
Government Agencies	• Occasionally communicating related management performance with authorities through official correspondence. • Annually registering greenhouse gas emissions data on the Ministry of Environment's "Corporate Greenhouse Gas Emissions Information Platform" for public access.	• In 2024, all related official documents and registration matters were properly responded to, and four meetings were held with government agencies to discuss the greenhouse gas inventory reporting issues.

Material Topics

Water Resource Management

International Frameworks and Indicators • GRI 303: Water and Effluents • Detailed Goals 6.3、6.4

Definition Nan Ya PCB's usage, recycling, and reuse of water resources, along with information on the affected water sources.

Management Actions	2024 Action Performance Tracking	Achievement Overview	Short-term Goals (1-3 Years)	Mid-to-Long-term Goals (3+ Years)
Water reduction target	Water consumption per unit of output is 0.118 million liters per million NTD, a 14% increase compared to last year.	Not Achieved Target	Water consumption per unit of output is based on the previous year's figures, with a target reduction of 2% annually.	Continuously promoting water-saving operations and participating in external assessments to improve water-saving technologies and effectiveness.
Water reuse target	The amount of reclaimed wastewater from discharge is 1,612 million liters per day, representing an 18.9% increase compared to the previous year.	Achieved Target	1. The reclaimed wastewater discharge rate is based on the previous year's figures, with a target annual increase of 1%. 2. In response to the government's initiative to use externally recycled water, 5,475 million liters per year are utilized.	1. Continuously implementing the reclamation and reuse of discharge water. 2. Continuously promoting the use of recycled water (both reclaimed discharge water and externally recycled water) to reduce the consumption of purchased water.
Implementing water resource management measures and committing to water-saving improvement activities.	A total of 26 water reduction projects have been completed, resulting in a daily reduction of 0.33 million liters of water consumption, with an annual benefit of 3.058 million NTD.	Achieved Target	Continuously promoting water-saving initiatives.	1. Continuously promoting water-saving initiatives. 2. Continuously using recycled water (both reclaimed discharge water and externally recycled water) to increase the number of times each drop of water is used.
Monitoring the quality of discharge water.	1. Zero environmental fines. 2. Daily sampling and testing of discharge water, with water quality meeting the standards.	Achieved Target	1. Zero environmental fines. 2. Regular testing of discharge water to maintain water quality in compliance with regulations.	1. Zero environmental fines. 2. Continuously improving processes and equipment to reduce wastewater emissions and enhance treatment efficiency.

Stakeholder Groups	Consultation Channels	Consultation Outcomes
Suppliers	• Conducting an annual supplier survey to ensure effective communication of company policies and timely feedback from suppliers. • Conducting an annual supplier audit to ensure compliance with regulations and to communicate feedback on the implementation of company policies.	• The supplier survey response rate reached 100% in 2024, with all responses regarding water resource management issues complying with company standards. • In 2024, 12 suppliers were audited, with no high-risk items identified in wastewater management.
Adjacent Communities	• At least once a year, relevant information is announced through the company website to inform the community and stakeholders.	• No complaints were received in 2024.

Material Topics

Waste Management

International Frameworks and Indicators • GRI 306: Waste • Detailed Goals 3.9、6.3、12.4

Definition Nan Ya PCB monitors the total amount of hazardous and non-hazardous waste generated during its operations, as well as the extent of their environmental impact.

Management Actions	2024 Action Performance Tracking	Achievement Overview	Short-term Goals (1-3 Years)	Mid-to-Long-term Goals (3+ Years)
Waste reduction and recycling management goals.	The amount of non-recycled waste per unit of output is 0.0424 tons per million NTD, a 1.6% decrease compared to last year.	Achieved Target	The amount of non-recycled waste per unit of output (tons or kilograms per million NTD) is based on the previous year's figures, with a target annual reduction of 1%.	1. Continuously promoting the reduction of combustible waste. 2. Feasibility assessment of recycling waste from processes and equipment.
Promotion of zero waste to landfill certification.	The Jin Xing plant promoted the certification of its 2023 waste disposal methods, with 99% of the total waste volume meeting the zero-landfill reuse approach (including 6% incineration for energy recovery). The plant obtained a gold-level certification in 2024.	Achieved Target	1. Over 95% of the total waste generated meets the zero-landfill reuse approach. 2. Maintaining the proportion of incineration and landfilling to be less than 10%.	Continuously promoting waste recycling to avoid disposal through incineration (without energy recovery) or landfilling.
Waste management	There was one environmental fine, which occurred due to a clerical error in the documentation when summing up the codes for the monthly waste production report.	Not Achieved Target	Zero fines for waste management.	Zero fines for waste disposal.
Waste management and contractor oversight.	Conducted on-site inspections with licensed waste disposal contractors, and no violations were found.	Achieved Target	Regularly conducting on-site inspections with waste disposal contractors.	Conducting due diligence on contractors to ensure their business qualifications and legality.

Stakeholder Groups	Consultation Channels	Consultation Outcomes
Suppliers	• Conducting an annual supplier survey to ensure effective communication of company policies and timely feedback from suppliers. • Conducting an annual supplier audit to ensure compliance with regulations and to communicate feedback on the implementation of company policies.	• In 2024, a total of 12 suppliers were audited, with no high-risk items identified in waste management.
Employees	• Through the knowledge base platform and training programs, enhancing employees' knowledge on waste management and reduction, integrating it into business operations. • Occasionally issuing internal company announcements and communication meetings, and providing updates on waste reduction implementation in monthly regular meetings.	• In 2024, a total of 3 training sessions were provided through the knowledge base platform and bulletin board, with 5,865 participants, and discussions on the progress of waste reduction projects were held during meetings.

Material Topics

Chemical Safety

International Frameworks and Indicators • Custom Topic • Detailed Goals 3.9、6.3、12.4

Definition Nan Ya PCB strengthens the control and emission measures for chemicals that have significant impacts on the environment and human health.

Management Actions	2024 Action Performance Tracking	Achievement Overview	Short-term Goals (1-3 Years)	Mid-to-Long-term Goals (3+ Years)
Improving the management system to implement inspection procedures at each stage.	1. Daily inspection of on-site operation management forms to confirm compliance with regulations and proper record-keeping. In 2024, 100% of the form records were randomly checked and found to be in compliance. 2. Strengthening internal audits with irregular checks. In 2024, there were 3 internal audits, and any violations have been addressed.	Achieved Target	1. Implementing on-site operation management processes to ensure no violations occur. 2. Conducting irregular internal audits with no violations found.	Implementing on-site operation management processes to ensure no violations.
Training for professional response personnel on toxic and concerning chemicals.	There are 9 qualified personnel at the Jin Xing plant and 2 at the Shu Lin plant, totaling 11 people, which exceeds the staffing requirements set by regulations.	Achieved Target	1. Conduct annual training for professional emergency response personnel to meet regulatory requirements. 2. Plan to add reserve personnel: 3 at the Jinxing Plant and 1 at the Shulin Plant, for a total of 4 people.	1. Continue conducting annual training for professional emergency response personnel to comply with regulations. 2. Add reserve personnel: 4 at the Jinxing Plant and 2 at the Shulin Plant, for a total of 6 people.
Conduct regular toxic disaster drills and unannounced emergency response exercises to ensure all personnel and systems are prepared to respond effectively.	1. Conducted one toxic disaster drill with 19 participants, and two unannounced toxic disaster response tests with a total of 23 participants; all exercises were in compliance with emergency response procedures. 2. Performed monthly inspections of emergency equipment, detection, and alarm systems; all were in compliance with regulations.	Achieved Target	1. No toxic disaster incidents occurred. 2. Conduct toxic disaster drills annually. 3. Review the deployment and operation plans for emergency equipment, detection, and alarm systems every two years to ensure compliance with regulations.	No toxic disaster incidents occurred.

Stakeholder Groups	Consultation Channels	Consultation Outcomes
Employees	• Through training and education, ensure that employees implement chemical management regulations and emergency response measures as part of their daily operations. • Irregularly issue internal company announcements and hold communication meetings, and provide updates on chemical management implementation and promote occupational safety compliance during monthly meetings.	• In 2024, provided employees with a knowledge base platform and bulletin board training and education, with a total of 5,473 participants. • In 2024, a total of 3 emergency response drills were conducted, involving 42 participants, all in compliance with emergency response procedures.
Customers	• Irregularly hold customer audits and communication meetings, and gather relevant feedback through customer satisfaction surveys. • Respond to customer requests for Nan Ya PCB's "Supplier Questionnaires" on an as-needed basis.	• In 2024, responded to four customer supplier questionnaires, addressing the status of the chemical management system to ensure compliance with regulations and protect customer rights.

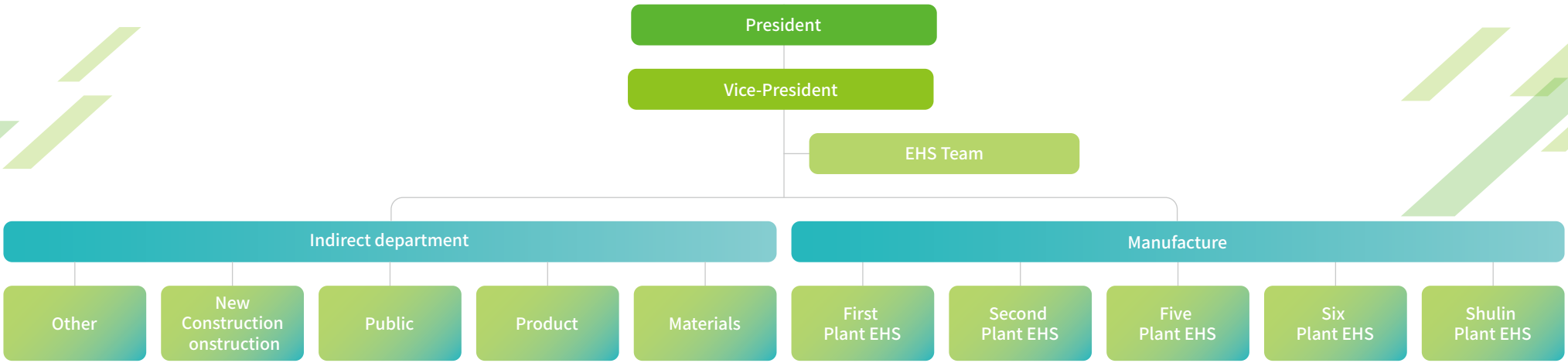
3.1 Environmental Policy and Achievements

3.1.1 Environmental Protection Policy

Occupational Safety and Health Management Organization and Responsibilities

Nan Ya PCB has an internal Safety and Health Department, which reports directly to the General Manager's office. It serves as the primary labor safety and health management unit, responsible for integrating, formulating, and executing company-wide policies and various standard implementation procedures, as well as handling external-related business. Each plant also has its own Safety and Health Department, responsible for promoting safety, health, and environmental protection matters within the plant.

ESH Organization



	Safety and hygiene management meeting	Environmental protection and energy saving meeting	Occupational Health and Safety Committee
Organizational Purpose	1. Zero occupational injuries and zero hazards. 2. Zero violation tickets	1. Zero anomalies as checked by the competent authorities 2. Energy saving, water saving and waste reduction	1. Established under the Occupational Health and Safety Act 2. Review safety, hygiene, health and other related business
Top Executive	Vice President	Vice President	President
Meeting Frequency	monthly	monthly	quarterly
Management Results in 2024	1. Zero Penalties 2. Three Work-Related Injuries	1. Regulatory Authority Review: One Waste Reporting Irregularity 2. Energy Conservation Target Achievement Rate: 89% 3. Water Conservation Target Achievement Rate: 87%	In 2024, a total of 16 improvement initiatives were proposed. 6 have been completed, and 10 are still being followed up.

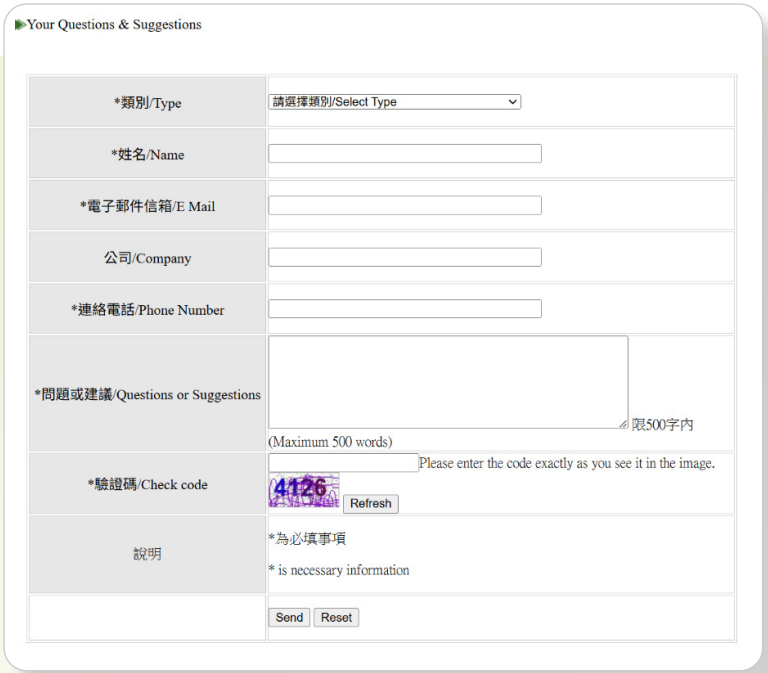
Management Review Procedure

Nan Ya PCB holds an annual "Environmental and Occupational Safety and Health Management Review Meeting" to review and assess the previous year's environmental and safety management plans (follow-up measures), goals, target implementation status, and review goal achievement rates. At the same time, the environmental and safety management goals and target values for the current year are set, along with the environmental and safety management plan, which is supervised by the Safety and Health Department to ensure implementation by all relevant departments. For information on management system certification and certificates, please refer to the "Awards and Certifications" section on the official website.

Environmental Issue Grievance Mechanism

The company has set up feedback mailboxes on its global and internal websites, with the public relations team responsible for handling external complaints. In 2024, there were no external or internal environmental issues raised as complaints at NYPCB.

Awards and Certifications ›
Feedback Mailbox ›

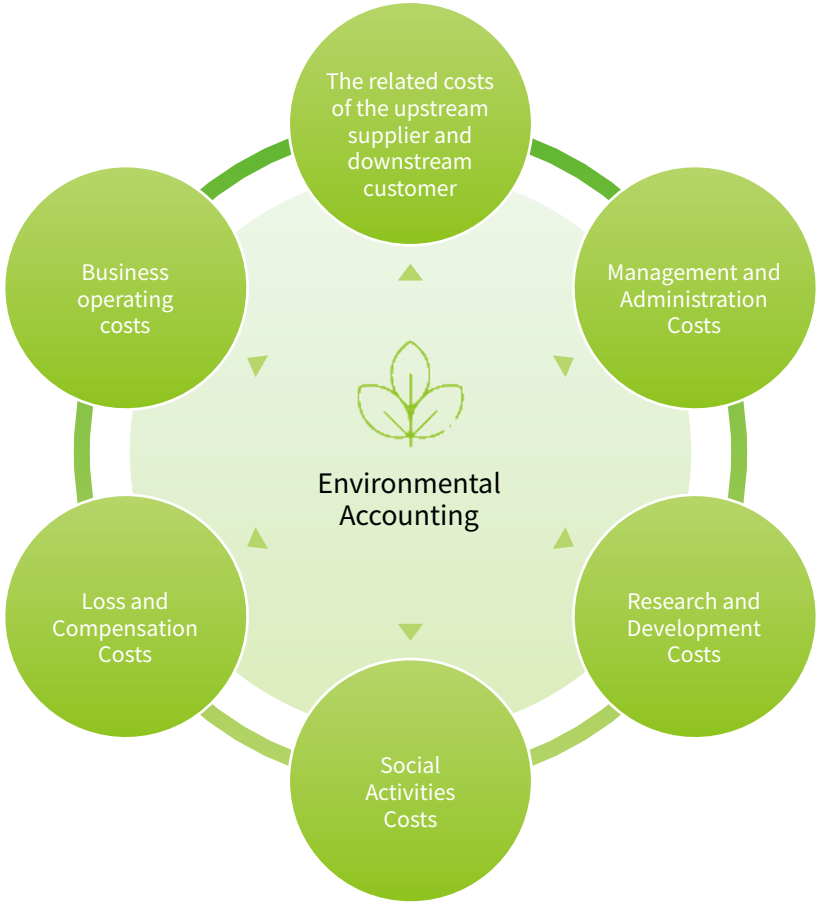

Your Questions & Suggestions

*類別/Type	請選擇類別/Select Type
*姓名/Name	
*電子郵件信箱/E Mail	
公司/Company	
*連絡電話/Phone Number	
*問題或建議/Questions or Suggestions	限500字內 (Maximum 500 words)
*驗證碼/Check code	Please enter the code exactly as you see it in the image. 4126 Refresh
說明	*為必填事項 * is necessary information
	Send Reset

3.1.2 Environmental Accounting

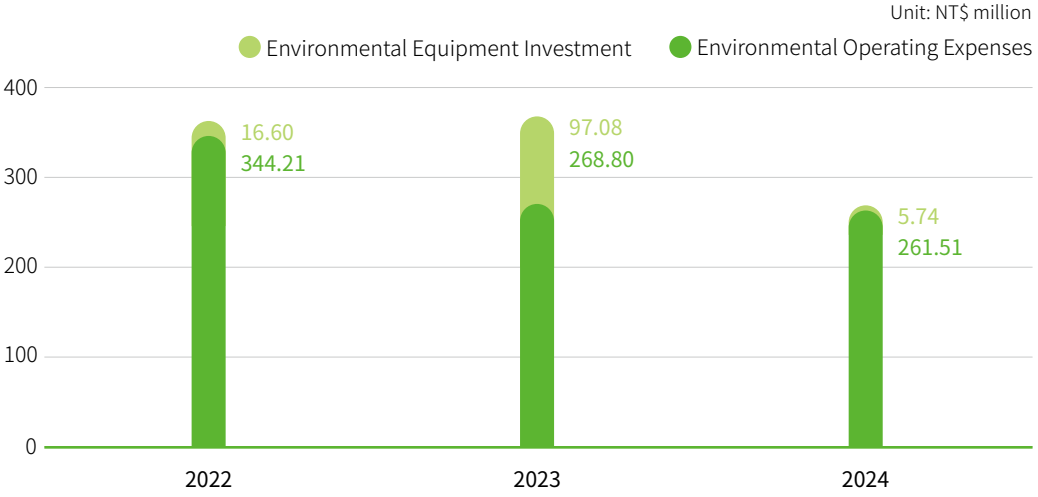
The environmental accounting system calculates environmental costs to identify and quantify the capital and expenditures invested by the company to mitigate, prevent, or eliminate the environmental impact caused by its operations. Nan Ya PCB has implemented an environmental cost accounting system, categorizing various environmental expenditures into six major categories (as shown in the diagram below), and has established separate accounting items for each category.

Classification of Environmental Protection Recurring Expenses



The environmental expenditures for 2024 amounted to NT$267.26 million, of which NT$261.51 million was for ongoing environmental expenses and NT$5.74 million for environmental equipment investment. Compared to 2023, equipment investment in 2024 decreased by NT$91.34 million, primarily because the wastewater treatment system upgrade and the continuous wastewater monitoring system installation at the Shulin plant were completed in 2023. In 2024, only partial equipment maintenance was carried out.

The environmental expenditures of NYPCB (South Electric) over the past three years



	2022	2023	2024
Environmental Equipment Investment	16.60	97.08	5.74
Environmental Operating Expenses	344.21	268.80	261.51
Total Environmental Expenses	360.81 (Note 4)	365.88	267.25

Note 1: The data from the Shulin plant has been included starting from 2023.

Note 2: Environmental equipment investment refers to investments in environmental improvement equipment.

Note 3: Ongoing expenses are the costs associated with activities aimed at preventing, reducing, or eliminating pollution or environmental hazards caused during production and consumption processes.

Note 4: The data in this column was incorrectly reported in the 2023 Sustainability Report and has been corrected.

3.1.3 2024 Overall Environmental Performance

The total input (materials, energy, water resources) and total output (greenhouse gases, air pollutants, waste, wastewater) of NYPCB in operational locations for 2024 are summarized in the following chart:

Energy

	Jinxing Plant	Shulin Plant	Total
LPG	345	0	345
Gasoline	47	0	47
Diesel	539	143	683
Renewable Energy	0	1,394	1,394
Electricity	1,167,983	482,676	1,650,660
Steam	263,962	171,956	435,918

(Unit:Gigajoule (GJ))

Water Resources

	Jinxing Plant	Shulin Plant	Total
Tap Water	2,377	811	3,188
Clean Water	54	0	54
Recycled Water	1,039	573	1,612
Reclaimed Water	383	0	383

(Unit:Million Liters (ML))

Materials

	Jinxing Plant	Shulin Plant	Total
Substrate	1,713	3,057	4,770
Sulfuric Acid	6,354	1,351	7,705
Hydrochloric Acid (HCl)	2,438	296	2,734
Nitric Acid	939	107	1,045
Plastic Sheet (Substrate)	897	13	910
Copper Balls	1,629	0	1,629
Hydrogen Peroxide (H_2O_2)	1,203	0	1,203
Sodium Persulfate (Micro-etchant)	1,677	0	1,677
Copper Foil Substrate	2,873	341	3,214

(Main Raw Material Usage) (Unit:Ton)

Greenhouse Gases

	Jinxing Plant	Shulin Plant	Total
Direct Emissions	4,384	1,608	5,992
Energy Indirect Emissions	350,363	75,321	425,684

(Unit:Ton CO_2e)

Air pollutants

	Jinxing Plant	Shulin Plant	Total
Volatile Organic Compounds (VOCs)	31,038	6,670	37,707.57
Particulate Matter (TSP - Total Suspended Particles)	17	10	27.45

(Unit:KG)

Waste Water

	Jinxing Plant	Shulin Plant	Total
Treated Water Volume	2,870	804	3,673.6
Discharged Water Volume	1,893	804	2,696.2

(Unit:Million Liters (ML))

Waste

	Jinxing Plant	Shulin Plant	Total
Total Waste	12,344	3,294	15,638
Recyclable Waste	11,634	2,635	14,269
Non-Recycled Waste	710	660	1,369

(Unit:Ton)

Note 1: No emissions of nitrogen oxides or sulfur oxides from exhaust gases.
Note 2: Renewable energy includes solar photovoltaic, purchased green electricity, etc.

3.2 Climate Change Actions (Key Topics)

3.2.1 Climate Change Management Framework

To address the risks and opportunities brought about by climate change, our company holds an annual management review meeting to assess and identify climate change risks and opportunities. Referring to the Task Force on Climate-related Financial Disclosures (TCFD) framework, we proactively implement response and preventive measures to reduce the impact of climate change on the company. The assessment scope does not include subsidiaries under the consolidated financial statements.

TCFD Report – Task Force on Climate-related Financial Disclosures >

Item	Governance	Strategy	Risk Management	Indicators and Goals
Management Strategies and Action Plan	1. Our company has established a carbon reduction organization to promote energy efficiency reviews and improvements across various units. Monthly energy management meetings are held to track progress. 2. Environmental policies, reduction targets, and the effectiveness of implementation plans are initially reviewed by the Vice President and then approved by the General Manager before execution.	1. The company continues to implement the ISO 14001:2015 Environmental Management System and ISO 14064-1:2018 Greenhouse Gas Inventory Guidelines, promoting various energy and resource-saving operational activities. 2. In alignment with the government' s green procurement policy, products with environmental and energy-saving labels are prioritized for procurement, and procurement results are reported to government agencies annually.	1. Risk Issue Collection: When developing risk scenarios, we consider the transition risks (policy and legal, market, technology, reputation) outlined in the TCFD framework, and define and explain the risks associated with potential events. 2. Identification of Significant Risks and Opportunities: Based on the financial impact, affected parties, and likelihood of relevant risk issues, significant risks and opportunities are identified. 3. Scenario Analysis and Opportunity Assessment: In accordance with TCFD's recommended guidelines, the company uses the worst-case scenarios for physical risk types and incorporates the analysis results into the strategy resilience assessment.	Our company has passed the Science Based Targets (SBT) certification for setting absolute greenhouse gas reduction targets. The baseline year is 2020, the starting year is 2021, and the target year is 2030, with an expected 25% reduction over 10 years.
Action plan	Collect and evaluate climate change-related information to develop climate change response plans, regularly review and improve them, and implement energy-saving and emission-reduction measures related to climate business.	Promote process optimization, improve the efficiency of public equipment, replace motors with energy-efficient motors (IE3), and enhance energy efficiency of drying equipment.	1. In response to the future demand for low-emission energy, the company develops automotive electronic products based on customer requirements for electric vehicle products. 2. Automotive applications include ADAS (Advanced Driver Assistance Systems), in-car audio and video entertainment, and more.	Green energy usage plan: Own solar photovoltaic generates 330,000 kWh annually; purchased green electricity amounts to 18.42 million kWh annually.
Execution status in 2024	Conducted 25 meetings to track the progress of energy management policy implementation, set annual goals, and make policy decisions.	• A total of 97 energy-saving projects were completed, reducing 23,294.7 kWh (83.9 GJ) of electricity daily. • A total of 26 water-saving projects were completed, reducing water consumption by 0.33 million liters daily.	• The current circuit boards used for automotive products do not have a direct carbon reduction benefit in the production process, but considering the end product (electric vehicles), they contribute to carbon reduction. • The revenue from automotive products in 2024 is NT$1,741 million, with an average monthly revenue of NT$145 million.	• The solar photovoltaic system at the Shulin plant generated a total of 387,000 kWh in 2024. • In 2025, a total of 9.21 million kWh of green electricity will be purchased annually.

3.2.2 Climate Change Management Strategy

In response to international trends, an analysis and assessment of the risks and opportunities brought by climate change is conducted as shown in the table below. This demonstrates the company's responsibilities and strategies, and allows for more effective capital allocation, with the aim of achieving the vision of a low-carbon economy transformation.

Short-Term Strategy (within 3 years)

Enhance energy efficiency, promote energy-saving and water-saving initiatives, integrate AI smart applications, and introduce cleaner production processes to reduce the demand for energy and water.

Item	Management Strategy	2024 Management Results
Energy Conservation Projects	Each year, environmental management goals and targets are set, and a proposal reward system is implemented to encourage each unit to review and improve energy efficiency. An internal energy management organization is established to oversee operations, and monthly energy management meetings are held to ensure the implementation of daily operations. Internal audits are also conducted to promote energy conservation.	• A total of 97 energy-saving projects were completed, reducing 23,294.7 kWh (83.9 GJ) of electricity daily, with an annual benefit of NT$22.1 million.
Water Conservation Projects		• A total of 24 water-saving projects were completed, reducing water consumption by 0.33 million liters daily, with an annual benefit of NT$3.1 million.

Medium- to Long-Term Strategy (3–10 Years)

In response to global warming and reducing environmental impact, we promote the application of green products and develop circuit board/carrier board applications that meet the needs of the electric vehicle market, 5G, IoT, and other sectors. The progress of our environmental system is incorporated into the supplier evaluation process, ensuring that suppliers understand our company's commitment to environmental protection and its goals, thereby building a green supply chain. Greenhouse gas emissions performance is also one of the key considerations.

Item	Management Strategy	2024 Management Results
Adoption of Green Energy	Plan and conduct a site assessment to identify suitable locations for solar power system installation.	• The in-house solar PV system was successfully commissioned in August 2023. It is expected to generate approximately 387,000 kWh of renewable electricity in 2024, contributing to our ongoing efforts in reducing carbon emissions and promoting energy sustainability.
	Developing a strategy for the purchase of renewable energy.	• To advance our renewable energy transition, internal assessments of multiple green electricity providers commenced. However, due to tight supply in the 2024 green energy market, the procurement schedule was affected. We anticipate initiating the purchase and use of approximately 9.21 milion kWh of renewable electricity annually starting in 2025.

3.2.3 Climate Change Risk and Opportunity Management

Led by the Environment, Health, and Safety (EHS) Department, the company convenes relevant units every six months to jointly gather information on risks and opportunities. This process takes into account transformation, physical risks and opportunities, and provides explanations on potential events, including the extent of financial impacts, timeline of impacts (short/medium/long term), affected stakeholders in the value chain, and the likelihood of opportunities. The climate change risk and opportunity assessment process at [Company Name] has remained largely unchanged from the previous year, with a further emphasis on transition risks and enhanced efforts to reduce greenhouse gas emissions and carbon footprints.

Climate-Related Risk and Opportunity Identification Process

1 Background Information Collection (Plan & Do)

Collection Period：
2024/1/1~2024/12/31

Participating Units 或 Participating Organizations：
Led by the Environment, Health, and Safety (EHS) Department, the company convenes relevant units, including the Business Analysis Group, Management Group, Sales Department, and Utilities Department, every six months to collaboratively gather information on risks and opportunities.

2 Risk and Operational Impact Assessment (Plan & Do)

Assessment Scope：
Supply Chain of NYPCB, Including Upstream and Downstream

Report Boundary：
In all Taiwan facilities, both transition risks (policy and legal, market, technology, and reputation) and physical risks (chronic and acute) are considered, with risk explanations provided for potential events that may occur.

3 Risk and Operational Impact Analysis (Plan & Do)

Implementation Method or Execution Method：
Identify and assess relevant issues based on the severity of financial impact.

Risk/Opportunity Impact Level Identification and Prioritization：
Assess based on the severity of financial impact, impact timeline (short/medium/long term), affected stakeholders in the value chain, and the likelihood of risks.

4 Control Measures and Target Setting (Check & Action)

When formulating opportunity scenarios, considerations include resource efficiency, energy, products and services, market, and resilience. Explanations are provided for potential events, including the extent of financial impacts, impact timeline (short/medium/long term), affected stakeholders in the value chain, and the likelihood of opportunities.

5 Review and Optimization (Check & Action)

Oversight of Issue Management：
After evaluating climate change-related risks and opportunities, they are monitored within the ISO 14001:2015 Environmental Management System, alongside other environmental issues. For potential events involving significant risks, contingency plans are developed in advance, such as risk transfer, risk avoidance, and mitigation measures to reduce the frequency of occurrence, minimize financial impacts, and lessen potential losses from risks.

Risk and Opportunity Identification Results

Dimensions	Impacts of Risks and Opportunities	Potential Financial Impacts	Risk/ Opportunity Rating	Risk and Opportunity Impact on Value Chain Stages					Response Strategies
				Upstream		Operations	Downstream		
				Research and Development	Raw Material Procurement	Manufacturing and Production	Product Sales	After-Sales Services and Consultation	
Physical Risks	Changes in rainfall patterns and the extreme variability of climate conditions.	In recent years, the impact of global climate change has altered the timing of rainfall, with Taiwan's plum rain season now starting later, after June, and lasting for a shorter period. This has resulted in reduced rainfall during Taiwan's dry season, leading to water shortages. As a result, there is a potential risk of water scarcity during the dry season at [Company Name]. If water is sourced from areas with abundant water resources to mitigate the shortage, it will inevitably increase production costs.	Low Risk			✓			• Reduction of process water usage • Wastewater recycling and reuse • Purchase of wastewater from the Taoyuan North District Water Resource Center to supply the ultrapure water regeneration system for producing purified water. By 2025, it is projected that daily consumption of tap water will be reduced by 11 million liters.
	Changes in rainfall patterns – flood and waterlogging events.	"Extreme weather events, such as strong winds or typhoons caused by abnormal climate patterns, may require production lines to be temporarily halted to prevent process hazards. In the event of heavy rainfall or flooding, operations may be suspended due to waterlogging at the facility. These scenarios could disrupt operations and potentially result in revenue loss. According to the flood simulation model by the National Disaster Prevention and Protection Technology Center, which evaluates the impact of 650 mm of rainfall over 24 hours, the company must pay close attention to flood risks associated with heavy rainfall. After reviewing the drainage capacity and response procedures (typhoon response and emergency procedures) for the two facilities, it has been confirmed that both sites have sufficient capabilities to manage heavy rainfall scenarios, thereby minimizing the impact of such weather events on production.	Low Risk			✓			• The company regularly monitors and manages energy consumption and water usage at each facility on a monthly basis, and has developed a climate change adaptation plan to mitigate the risks associated with climate change. • Each facility is equipped with flood prevention pumps, which are regularly inspected, maintained, and serviced to reduce the likelihood of flooding due to heavy rainfall. • The estimated financial impact of these risks is projected to be NT$627,000 per year.

Dimensions	Impacts of Risks and Opportunities	Potential Financial Impacts	Risk/ Opportunity Rating	Risk and Opportunity Impact on Value Chain Stages					Response Strategies
				Upstream		Operations	Downstream		
				Research and Development	Raw Material Procurement	Manufacturing and Production	Product Sales	After-Sales Services and Consultation	
Transition Risks	Carbon tax levy	The 'National Climate Change Action Framework' and the 'Climate Change Adaptation Act' set long-term greenhouse gas reduction targets for the country and establish a total emission control and allocation mechanism for the manufacturing sector. Under the cap-and-trade system, we may be required to purchase emission allowances, leading to increased energy costs and higher production expenses. Additionally, with the official announcement of the 'Climate Change Adaptation Act' in 2023, carbon fees will be levied starting in 2026, resulting in increased expenditure. If carbon costs cannot be passed on, product prices may become less competitive, leading to significant financial impacts.	Significant Risks			✓			• he company utilizes AI technology to optimize manufacturing processes, improving yield and reducing raw material consumption, such as streamlining baking, solder ball placement, and solder paste processes. Additionally, the energy and water-saving initiatives are categorized into three areas: 1. Process energy reduction 2. Energy management 3. Enhancement of utility equipment efficiency Each facility' s energy consumption and water usage are monitored monthly, and a climate change adaptation plan is implemented to mitigate the risks associated with climate change. • The expected investment for these improvements is NT$50,000,000.
	Renewable Energy Development Act – Installation of Green Energy	The amendment to Taiwan's 'Renewable Energy Development Act' was officially legislated in April 2019. As the company' s contracted electricity capacity of 47,117 kW exceeds the regulatory requirement of 5,000 kW, we are required to install renewable energy systems and energy storage devices amounting to 10% of the contracted capacity within five years (or 8% within three years), or purchase renewable energy certificates. Otherwise, a penalty payment will be required.	Low Risk			✓			• The company has integrated its electricity usage into the overall planning and improvement of the parent company (Nan Ya PCB Plastics)' s large electricity user capacity. • To achieve green manufacturing and net-zero goals, the company will continue to increase the proportion of renewable energy usage. • In 2023, a 347.47 kW solar photovoltaic system was installed at the Shulin plant, and the system has been fully operational.

Dimensions	Impacts of Risks and Opportunities	Potential Financial Impacts	Risk/ Opportunity Rating	Risk and Opportunity Impact on Value Chain Stages					Response Strategies
				Upstream		Operations	Downstream		
				Research and Development	Raw Material Procurement	Manufacturing and Production	Product Sales	After-Sales Services and Consultation	
Transition Risks	Energy Technology	In response to climate change, coal-producing countries are reducing or even halting coal mining, leading to an increase in coal prices. As a result, Nan Ya PCB 's public power plants may face higher energy costs.	Significant Risks			✓			• Initiatives such as 'process energy reduction, energy management, and enhancement of utility equipment efficiency' involve regular monthly monitoring and management of energy consumption and water usage at each facility to mitigate the risks associated with rising energy costs. • The company continues to explore available space for the installation of solar photovoltaic systems to reduce electricity procurement costs.
	Customer Requirement for Green Energy	A major consumer electronics customer (one of the top ten clients) has requested the full implementation of green electricity by 2025. Failure to meet this requirement could result in the loss of associated revenue.	Significant Risks			✓			• In order to meet customer requirements, a renewable energy solution is being developed. In 2024, the solar photovoltaic system at the Shulin plant is expected to generate 387,000 kWh of electricity. • Evaluations are underway with multiple renewable energy providers for electricity procurement. Due to a shortage in the green electricity market in 2024, procurement timelines have been impacted. It is estimated that 18.42 million kWh will be purchased in 2025, with an expected investment of NT$520,000,000.
	Reputational Negative Feedback Caused by Climate Change	In recent years, with the growing focus on sustainability, investment institutions evaluate clients' sustainability performance when assessing investments and loans. Failure to meet sustainability requirements may not only negatively impact the company's reputation but also affect financing interest rates from financial institutions, leading to higher borrowing costs.	Low Risk			✓			• Joined the international 'Carbon Disclosure Project (CDP)' and the 'Science-Based Targets initiative (SBTi)' to demonstrate our commitment to sustainability and carbon reduction achievements. • Promoted energy-saving and carbon reduction initiatives through solar energy, green electricity, and a circular economy, actively transitioning to low-carbon energy and reducing fuel usage.

Dimensions	Impacts of Risks and Opportunities	Potential Financial Impacts	Risk/ Opportunity Rating	Risk and Opportunity Impact on Value Chain Stages					Response Strategies
				Upstream		Operations	Downstream		
				Research and Development	Raw Material Procurement	Manufacturing and Production	Product Sales	After-Sales Services and Consultation	
Opportunity	Electric Vehicle Market	In response to the global push for net-zero emissions, multiple countries have established timelines for banning the sale of fossil fuel vehicles from 2020 to 2040. After 20 years, consumers in these countries will only be able to purchase electric vehicles or hydrogen fuel cell vehicles, driving rapid development in the electric vehicle market. The company is actively investing in the research and development of products related to the electric vehicle industry, such as carrier boards for electric vehicle peripheral products, which is expected to increase revenue from related product lines.	Significant Opportunities				✓	✓	• The company focuses on advanced technologies for high-layer count, large-size substrates, and high-end communication carrier boards, promoting precision alignment technology, high-speed I/O, and 90μm solder ball technology to meet the demands of the electric vehicle market. • The company is advancing pitch technology development and ensuring technological leadership through key processes and new materials (such as high-reliability substrates, low surface roughness boards, and low signal loss films) to meet the demand for low-latency communication. The estimated investment for these initiatives is NT$2,500,000,000.
	Establishment of Renewable Energy	The company is assessing the potential for solar energy installations at its existing sites. If feasible, this will reduce the company's electricity procurement and lower carbon emissions, in alignment with the company’ s sustainability goals.	Significant Opportunities			✓			• In 2023, the solar photovoltaic system at the Shulin plant was completed and has begun supplying power to the system. • The expected electricity generation for 2024 is 387,000 kWh per year. • The estimated investment for these improvements is NT$70,000,000.
	Circuit boards for electric vehicle peripheral products	If the company successfully develops circuit boards/carrier boards for electric vehicle peripheral products in collaboration with customers, the increasing demand in the electric vehicle market will contribute to a rise in the company’ s revenue.	Significant Opportunities				✓	✓	• In response to the demand for automotive electronic products required for the next generation of environmental emissions (low pollution) and energy (electric vehicles) markets, including applications such as autonomous driving and in-vehicle audio-visual entertainment, the company is developing relevant products.
	Supplier procurement resilience	By utilizing locally produced materials and inventory in Taiwan to replace materials from Japan, the company adopts a multi-supplier strategy to enhance resilience against climate-related risks.	Significant Opportunities		✓				• For the procurement of key raw materials, the company continues to seek diverse suppliers to stabilize market purchasing prices.

Scenario Analysis

Based on the risk identification process, the company has identified significant risks and opportunities. For 'physical risks,' a further scenario analysis is conducted, and the results are incorporated into the strategy resilience assessment.◦

Physical Risks	Scenario	TCCIP, National Disaster Prevention and Protection Technology Center (SSP1-2.6, SSP2-4.5, SSP3-7.0, SSP5-8.5)
	Explanation	Estimate the severity levels of flooding, drought, and heatwave disasters for the period 2041-2060.

Note: The Shared Socioeconomic Pathways (SSP) incorporate socioeconomic development considerations, dividing them into five scenarios (SSP1-SSP5) based on different assumptions such as economic growth, globalization, land use changes, technological development, and educational opportunities. Each scenario identifies corresponding adaptation and mitigation challenges.

Physical Risks

Manufacturing Sites	Scenario	Climate Disasters				
		Acute Flooding	Drought	High Temperature	Landslides	Slope Disasters
Jinxing Plant	SSP1-2.6	High Risk	Low Risk	Low Risk	No Risk	Low Risk
	SSP2-4.5	High Risk	Low Risk	Low-Medium Risk	No Risk	Low Risk
	SSP3-7.0	High Risk	Low Risk	Low-Medium Risk	No Risk	Low Risk
	SSP5-8.5	High Risk	Low Risk	Low-Medium Risk	No Risk	Low Risk
Shulin Plant	SSP1-2.6	Medium Risk	Low Risk	Low Risk	No Risk	Low Risk
	SSP2-4.5	Medium Risk	Low Risk	Low-Medium Risk	No Risk	Low Risk
	SSP3-7.0	High Risk	Low Risk	Low-Medium Risk	No Risk	Low Risk
	SSP5-8.5	High Risk	Low Risk	Low-Medium Risk	No Risk	Low Risk

Risk Level Categories: Low | Low-Medium | Medium | High-Medium | High

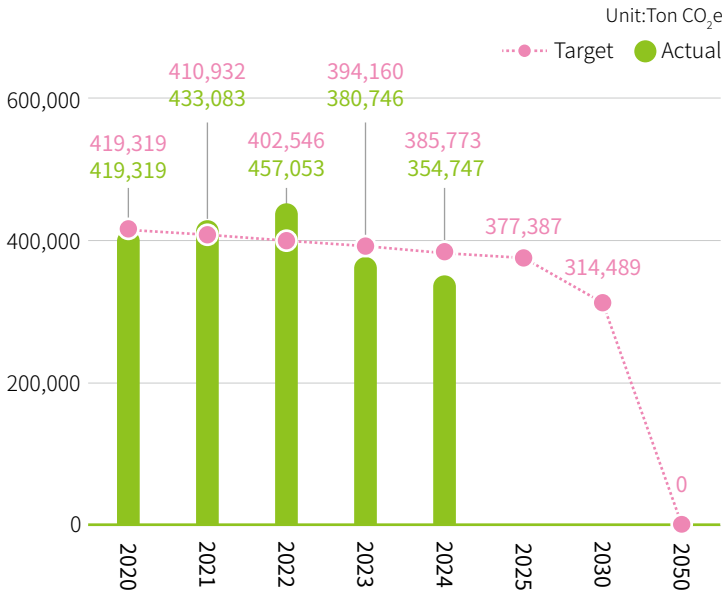
No Risk → No Data

Note: Slope land disasters are analyzed based on historical events.

3.2.4 Climate Change Indicators and Targets

Science-Based Carbon Reduction Targets

"In 2024, the company's Jinxing Plant passed the SBTi review and established greenhouse gas reduction targets in line with the international Science Based Targets (SBT) initiative, aiming to limit global warming to 2°C. Using 2020 as the base year and 2021 as the start year, the target year is set as 2030. The plant commits to reducing Scope 1 and Scope 2 emissions by a total of 25% over 10 years, and Scope 3 emissions by 12.3%.◦



Note 1: The SBT (Science-Based Target) reduction goals do not include the Shulin Plant.

Note 2: Starting from 2024, the company has incorporated the use of green electricity and adopted the "Electricity Certificate Integrated System" as proof of the renewable energy used

Short, Medium, and Long-term Management Goals

2024 Targets and Action Plans for Improvement

Category	Item		2024 Target Value	2024 Actual Value	2024 Total Actual Value		Description of Improvement and Promotion Measures
Water Conservation Measures	Water Intensity per Unit of Output (Million Liters per Million NTD)	Jinxing Plant	0.109	0.087	0.112	Not Achieved Target	1. The Company continues to promote water-saving projects and conducts monthly reviews to track progress and effectiveness. 2. Efforts are underway to utilize external sources of reclaimed water to increase the number of times each drop of water is reused, thereby reducing overall water resource consumption.
		Shulin Plant		0.025			
	Recycled Effluent Volume (Million Liters per Year)	Jinxing Plant	1,370	1,039	1,621	Achieved Target	1. An additional reclaimed water source has been incorporated into the facility' s water supply system to strengthen water recycling efforts. 2. The Shulin Plant continues to recover and reuse discharged wastewater, effectively reducing overall water resource consumption.
		Shulin Plant		582			
Energy Conservation and Performance	Greenhouse Gas Emission Intensity (tons CO_2e per million NTD of output value)	Jinxing Plant	10.27	10.99	13.37	Not Achieved Target	1. Continued implementation of water-saving initiatives, with monthly reviews conducted to assess progress and effectiveness. 2. Improvements are driven by science-based targets through participation in the Science Based Targets initiative (SBTi), with monthly performance evaluations to ensure alignment with international carbon reduction goals. 3. Adoption of green electricity as part of the Company' s commitment to renewable energy use. 4. In-house solar photovoltaic (PV) systems have been installed, with plans to expand capacity to further increase solar power generation.
		Shulin Plant		2.38			
Waste Reduction Management and Performance)	Non-Recycled Waste Intensity (tons per million NTD of output value)	Jinxing Plant	0.0526	0.0220	0.0424	Achieved Target	1. Continued implementation of waste reduction initiatives to minimize environmental impact throughout operational processes. 2. Adoption of the UL 2799 Zero Waste to Landfill certification framework, actively promoting the reuse and recycling of waste materials to achieve higher resource circularity.
		Shulin Plant		0.0204			

Note 1: Water Conservation – Water Consumption per Unit Output (million liters per NT$ million): The target is set based on the previous year' s actual consumption, with an annual reduction of 2%.

Note 2: Water Conservation – Recycled Effluent Volume (million liters/year): The target is set based on the previous year' s actual recovery rate, with an annual increase of 1%.

Note 3: Energy Conservation – Greenhouse Gas Emissions per Unit Output (metric tons CO_2e per NT$ million): The target is set based on the previous year' s actual emissions, with an annual reduction of 2%.

Note 4: Waste Reduction – Unrecycled Waste Generation per Unit Output (metric tons per NT$ million): The target is set based on the previous year' s actual generation, with an annual reduction of 1%.

Explanation for Not Meeting Water and Energy Efficiency per Unit Output Targets:

In 2024, consolidated revenue decreased by 23.6% compared to 2023. However, basic operations of utility systems and production equipment had to be maintained, resulting in unmet targets for water and energy efficiency per unit output.

Explanation for Meeting Waste Reduction Target:

In 2024, consolidated revenue decreased by 23.6% compared to 2023. As the expansion of the Shulin Plant was completed in 2023, construction-related waste generation significantly decreased in 2024, enabling the achievement of the waste reduction target.

2025 Targets

1. The Company continues to actively promote initiatives in water conservation, energy efficiency, and waste reduction, aiming to enhance resource utilization efficiency across all operational areas.
2. Performance Comparison Targets between 2024 and 2025 have been set as follows:
   - Water intensity: reduce by 2%
   - Electricity intensity: reduce by 2%
   - Unrecovered waste generation per unit output: reduce by 1%
   - Greenhouse gas emissions intensity: reduce by 2%
3. The wastewater recovery rate is targeted to increase by 1% in 2025 compared to 2024.
4. The Company aims to achieve and maintain a Leadership Level rating in the Carbon Disclosure Project (CDP) assessments for 2025:
   - Climate Change Questionnaire: Grade A
   - Water Security Questionnaire: Grade A
5. Actively adopting external reclaimed water sources to further reduce water consumption and enhance sustainability performance.

Short-term Goals (1-3 Years)

1. Continue to actively promote water conservation, energy efficiency, and waste reduction initiatives across the company.
2. Set annual reduction targets for the years 2024 and beyond:
   - Water consumption: reduce by 2% per year
   - Electricity consumption: reduce by 2% per year
   - Unrecovered waste generation: reduce by 1% per year
   - Carbon emissions: reduce by 2% per year in 2025, and by 3% per year from 2026 to 2030
3. The wastewater recovery rate will increase by 1% annually.
4. Maintain the Leadership Level rating in Carbon Disclosure Project (CDP) for the Climate Change Questionnaire and Water Security Questionnaire in 2025.
5. Continue to adopt external reclaimed water sources to further optimize water usage and improve sustainability performance.

Medium and Long-term Goals (Beyond 3 Years)

1. Continue to drive water conservation, energy efficiency, and waste reduction efforts, while participating in external assessments to improve energy-saving technologies and effectiveness.
2. Install RO purification treatment systems to enhance wastewater recovery.
3. Increase the proportion of external reclaimed water used in production processes.
4. Continue to submit CDP questionnaires, keeping track of international trends in climate change response.
5. Set an absolute greenhouse gas reduction target for 2030, aiming to reduce emissions by 25% compared to the baseline year 2020.
6. The Occupational Health, Safety, and Environmental Management System (OHSE) will continue to promote digitalization, enabling real-time monitoring and reducing the occurrence of anomalies.

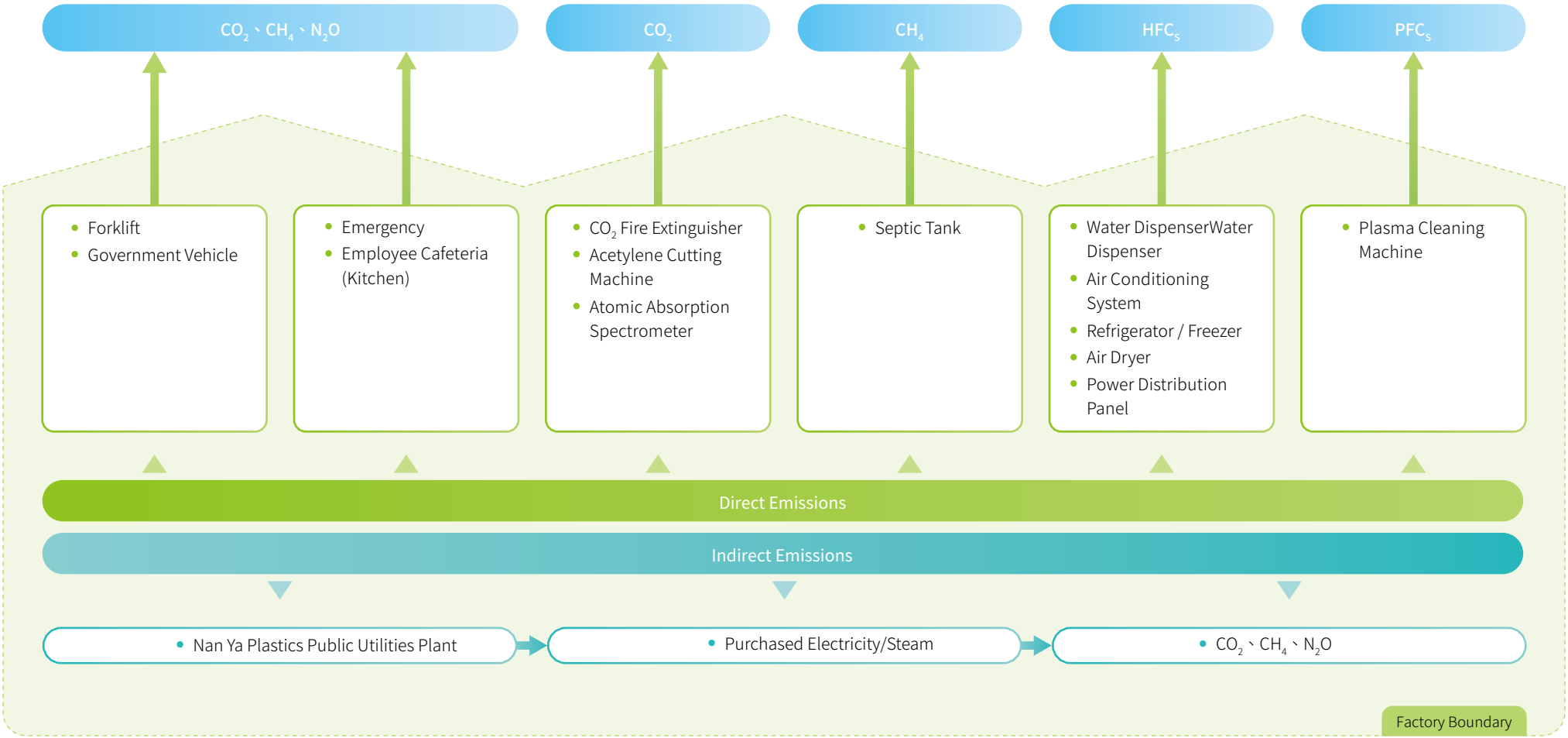
Note1: Wastewater Reuse Rate = [(Recovered Water Volume) / (Discharged Water Volume + Recovered Water Volume)] × 100%
Note2: Production Value is calculated based on consolidated revenue figures.

3.2.5 Greenhouse Gas and Energy Management

Greenhouse Gas Management

Nan Ya PCB' s greenhouse gas (GHG) emissions primarily stem from energy indirect emissions resulting from electricity consumption at manufacturing facilities. In accordance with ISO 14064-1:2018 standards for organizational GHG inventories, the company conducts quantitative assessments of its direct and indirect GHG emissions (Scope 1 and Scope 2). For Scope 3 emissions, Nan Ya PCB has also implemented measures such as on-site support for production, video conferencing, and a carpooling system for business travel, aiming to reduce emissions from product transportation and employee commuting.

Greenhouse Gas Inventory Scope Diagram



A. Total Greenhouse Gas Emissions Over the Years

Total Greenhouse Gas Emissions in the Past 3 Years

Unit: Tons of CO_2e; Tons of CO_2e per million NTD

		2022	2023	2024
Jinxing Plant	Scope 1 (A1)	9,409.16	1,611.51	4,384.27
	Scope 2 (B1)	477,488.77	378,822.84	350,362.78
Shulin Plant	Scope 1 (A1)	-	1,616.29	1,607.68
	Scope 2 (B1)	-	60,819.47	75,321.41
Total Emissions (A+B)		486,897.94	442,870.11	431,676.14
Emission Intensity per Unit of Output (tons CO_2e/million)		7.5316	10.4814	13.3715
Scope 3 (C)		328,466.36	432,548.72	Under Inventory
Total Emissions (A+B+C)		815,364.29	875,418.83	431,676.14

Note 1: Starting from 2023, data from the Shulin Plant has been included in the consolidated calculation. Beginning in 2024, the GHG emissions from the Shulin Plant and Jinxing Plant will be presented separately.

Note 2: GHG emissions data for 2022–2023 have been verified by third-party verification bodies BSI and SGS. The 2024 emissions data are self-reported and are expected to be verified by August 2025, with updated figures to be published in the 2025 Sustainability Report.

Note 3: Scope 1 covers Category 1 direct GHG emissions and removals, including carbon dioxide (CO_2), methane (CH_4), nitrous oxide (N^2O), hydrofluorocarbons (HFCs), perfluorocarbons (PFCs), sulfur hexafluoride (SF_6), and nitrogen trifluoride (NF_3). Scope 2 refers to Category 2 indirect GHG emissions from energy use. Organizational boundaries are defined using the control approach, and emissions are calculated using emission factors, referencing the Global Warming Potential (GWP) from the IPCC Fifth Assessment Report.

Note 4: Scope 3 includes Categories 3–6, covering other indirect GHG emissions such as transportation, use of products by the organization, products manufactured by the organization, and other sources. The inventory includes emissions from employee commuting and business travel, outsourced waste disposal, and transportation by outsourced engineering contractors.

Note 5: Scope 2 emission factors for the Jinxing Plant are based on electricity and steam emission factors from Nan Ya PCB Plastics' Jinxing Utility Plant. For the Shulin Plant, emission factors are based on the latest carbon emission factors announced by the Energy Administration, while steam emission factors are sourced from Nan Ya PCB Plastics' Shulin Utility Plant.

Note 6: The Jinxing Plant's base year is set as 2020, with combined Scope 1 and Scope 2 emissions totaling 419,319.07 metric tons CO_2e. The Shulin Plant's base year is 2023, with Scope 1 and Scope 2 emissions totaling 62,435.76 metric tons CO_2e.

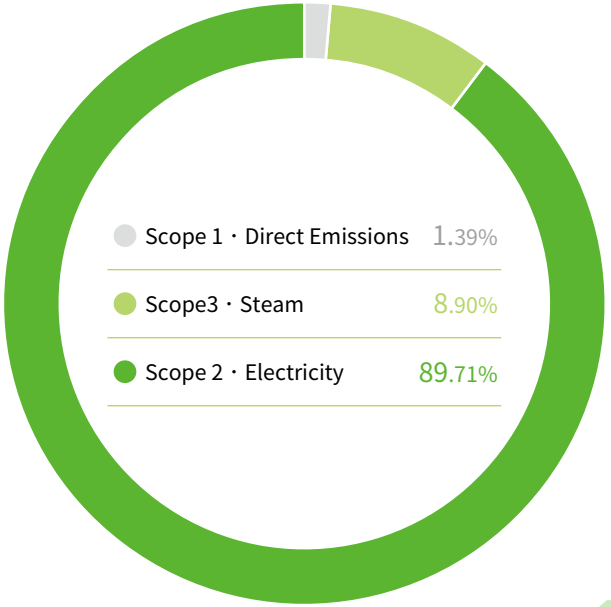
Note 7: GHG emissions per unit output = Total Scope 1 and Scope 2 emissions / Annual company output (calculated based on consolidated revenue).

B. Emissions Analysis

The primary sources of greenhouse gas (GHG) emissions at Nan Ya PCB's Jinxing Plant are purchased electricity and steam, both supplied by Nan Ya PCB Plastics Corporation's Jinxing Utility Plant. For the Shulin Plant, electricity and steam are sourced from Nan Ya PCB Plastics Corporation's Shulin Utility Plant and Taiwan Power Company. To effectively reduce GHG emissions, the key focus is on electricity conservation.

In 2024, Nan Ya PCB's total Scope 1 and Scope 2 GHG emissions decreased by 3% compared to 2023, mainly due to a decline in capacity utilization, which indirectly contributed to emission reductions. Through process optimization, the company has achieved a year-on-year decrease in GHG emissions per unit of output, meeting the annual 2% reduction target.

2024 Greenhouse Gas Emissions Analysis



Energy Management and Energy Conservation Improvements

In 2024, the total energy consumption within Nan Ya PCB' s organizational boundary was 2,089,047.31 GJ, with an energy intensity of 64.71 GJ per NT$ million. Non-renewable energy consumption was primarily derived from liquefied petroleum gas (LPG), diesel, and gasoline, accounting for approximately 0.02%, 0.03%, and 0.002% of total energy use, respectively.

Regarding purchased energy, the company' s main production process—printed circuit board (PCB) manufacturing—relies primarily on externally sourced electricity and steam, which are also the major sources of its greenhouse gas emissions.

Compared to 2023, overall energy consumption increased, and energy intensity showed an upward trend. This was mainly due to the commissioning of the Phase II expansion of the Shulin Plant in the fourth quarter of 2024, which contributed to higher energy usage.

Energy Consumption Statistics for the Past 3 Years

Unit: Gigajoules (GJ)

Category	Source	Subcategory	2022	2023	2024
Non-renewable energy consumption (Note 1)	Jinxing Plant	Liquefied Petroleum Gas	476.16	426.72	345.22
		Diesel	1,241.53	750.90	539.20
		Gasoline	44	54.43	47.09
	Shulin Plant	Diesel	-	229.31	143.50
Renewable energy consumption (Note 2)	Shulin Plant	Solar Power, Wind Power	-	771.55	1,394.48
Purchased and consumed electricity, heating, cooling, and steam (Note 3)	Jinxing Plant	Purchased Electricity	1,523,598.01	1,278,537.08	1,167,983.40
		Purchased Steam	262,278.12	260,557.48	263,961.97
	Shulin Plant	Purchased Electricity	-	395,914.57	482,676.40
		Purchased Steam	-	122,717.00	171,956.05
Total energy consumption within the organization (Note 4)			1,787,638.51	2,059,959,04	2,089,047.31
Energy intensity (Note 5)			27.65	48.75	64.71

Note 1: Fossil fuels are primarily used for facility emergency generators, forklifts, and company vehicles.

Note 2: Nan Ya PCB commissioned its first-phase solar photovoltaic (PV) system in 2023.

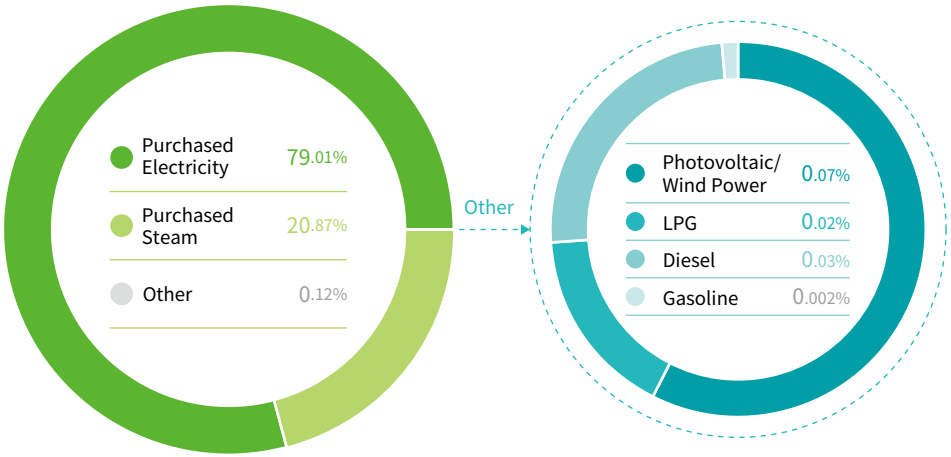
Note 3: The electricity and steam used in the production processes at the Jinxing Plant are sourced from Nan Ya PCB Plastics Corporation's Jinxing Utility Plant. For the Shulin Plant, electricity is purchased from Taiwan Power Company, and steam is purchased from Nan Ya PCB Plastics Corporation's Shulin Utility Plant.

Note 4: Total energy consumption within the organization = consumption of non-renewable energy + consumption of renewable energy + purchased electricity, heating, cooling, and steam + self-generated but not consumed electricity, heating, cooling, and steam − energy sold (electricity, heating, cooling, and steam).
Nan Ya PCB does not have any self-generated but not consumed energy or sold energy.

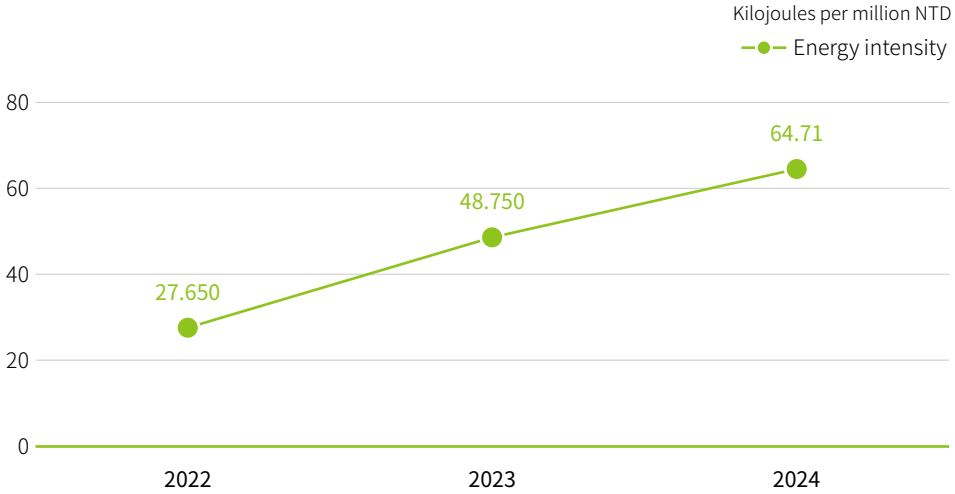
Note 5: Energy intensity (GJ per NT$ million) = total energy consumption within the organization (GJ) / annual company output (NT$ million, calculated based on consolidated revenue).

Note 6: Data from the Shulin Plant has been included in calculations starting from 2023.

Proportion of Total Energy Consumption Within the Organization in 2024



Energy Intensity Statistics for the Past 3 Years



A. Renewable Energy Usage

In response to the global trend toward renewable energy adoption, Nan Ya PCB has initiated the assessment of suitable locations for solar power installation and is actively planning the procurement of green energy sources such as wind and solar power.

In June 2023, the solar power system at the Shulin Plant was completed. In 2024, it generated a total of 387,000 kWh of electricity. Plans are underway to expand into Phase II of the solar installation, with a target completion date by the end of 2026. Upon completion, the total annual solar power generation is expected to reach 1.02 million kWh, which would reduce approximately 503.9 metric tons of CO_2 emissions.

B. Energy Conservation and Improvement Initiatives

Nan Ya PCB is committed to reducing energy costs and improving energy efficiency. Each year, the company sets environmental management goals and targets, and promotes energy efficiency improvements across departments through an incentive-based proposal system. An internal energy management organization has been established to oversee operations, hold monthly energy management meetings, and conduct regular internal energy-saving audits to ensure the effective implementation of energy-saving measures.

In 2024, Nan Ya PCB completed a total of 97 energy-saving projects, resulting in a daily reduction of 23,294.7 kWh (equivalent to 83.9 GJ). On an annual basis, this translates to an electricity saving of 8.386 million kWh, a reduction of 7,872.6 metric tons of CO_2 emissions, and an estimated annual benefit of NT$221 million.

Item Number	Improvement Methods	Greenhouse Gas Reduction (tons of CO_2e/year)	Improvement Benefits (million NTD/year)
1	Process Energy Use Reduction	5,129	14.5
2	Energy Management	118.48	0.4
3	Improvement in Utility Equipment Efficiency	2,625	7.2
	Total	7,873	22.1

Note 1: The energy-saving benefits are calculated based on the "Voluntary Greenhouse Gas Reduction Verification Guidelines for Industry" issued by the Taiwan Green Productivity Foundation.

Note 2: The emission factors used for calculation are based on the data from Nan Ya Plastics Corporation's Jin-Xing public utility plant (using the Ministry of Economic Affairs' GHG Emission Inventory Tool version 4.1). The electricity emission factor for Jin-Xing is 0.9807 metric tons of CO_2e per thousand kWh, and for the Tree-Lin plant, it is 0.494 metric tons of CO_2e per thousand kWh based on 2023 data from Taiwan Power Company.

Note 3: The 2024 emission data is self-reported, and verification is expected to be completed by August 2025. The data will be updated in the 2024 sustainability report.

Note 4: Nan Ya PCB 's energy-saving projects primarily focus on process efficiency and energy management optimization, which mainly reduce greenhouse gas emissions in Scope 2.

3.3 Water Resource Management (Key Topic)

3.3.1 Water Usage Management

The water sources for the company are primarily tap water and recycled water, with no usage of groundwater. The Jin-Xing plant's tap water is sourced from the Shimen Reservoir, while the Tree-Lin plant's tap water comes from the Feitsui Reservoir. According to the global water risk mapping tool (Aqueduct Water RiskAtlas, AWRA) developed by the World Resources Institute, Taiwan is not located in areas with high or extremely high baseline water stress.

Nan Ya PCB Plastics has used historical process water data as the basis for improvement and optimization measures. The company tracks and improves water usage efficiency and total consumption. In 2024, water consumption was 928 million liters, a 42% reduction compared to 2023, primarily due to the impact of lower capacity utilization.

Note 1: In 2022, due to the expansion and trial operation of the Tree-Lin plant, the data was not included. Data for 2023 onwards is now included.

Note 2: The other water source for the Jin-Xing plant of Nan Ya PCB Plastics is the water supplied by Nan Ya PCB 's Jin-Xing plant. The Tree-Lin plant does not use other water sources.

Note 3: The water discharge receiving bodies for Nan Ya PCB Plastics are the Nankan River for the Jin-Xing plant and the Dahan River for the Tree-Lin plant.

Note 4: Water intake = surface water + third-party water (tap water + recycled water); water consumption = water intake - water discharge.

Note 5: Water consumption per unit of output (million liters/ million dollars) = water consumption (million liters) / annual company revenue (million dollars, calculated using consolidated revenue).

Note 6: Water intake per unit of output (million liters/ million dollars) = total water intake (million liters) / annual company revenue (million dollars, calculated using consolidated revenue).

Water Usage Statistics for the Past 3 Years - Nan Ya PCB

Unit: Million Liters

Factory Area	Category			2022	2023	2024
Jinxing Plant	Water Intake (A1)	Surface Water		787	142	54
		Third-Party Water	Tap Water	3,725	2,878	2,377
			Recycled Water	-	-	383
	Wastewater Discharge Volume (B1)			2,792	1,865	1,893
Shulin Plant	Water Intake (A1)	Surface Water		-	-	-
		Third-Party Water	Tap Water	-	1,363	1,019
			Recycled Water	-	-	-
	Wastewater Discharge Volume (B1)			-	929	817
Total Water Intake (A1 + A2)				4,512	4,383	3,834
Total Wastewater Discharge (B1 + B2)				2,916	2,794	2,709
Water Consumption (A - B)				1,596	1,589	1,124
Water Consumption per Unit of Output (Million Liters / Million Dollars)				0.0220	0.0376	0.0348
Water Usage per Unit of Output (Million Liters / Million Dollars)				0.0698	0.1037	0.1188

3.3.2 Water Resource Management Measures

To reduce water consumption, Nan Ya PCB Plastics continues to implement process-level water-saving measures and water recycling initiatives. Additionally, the company plans to reuse cleaning water within the production lines. Furthermore, water-saving devices have been installed on all faucets across the entire plant, including in employee office areas, to promote a culture of water conservation throughout the organization.

Nan Ya PCB Wastewater Recycling System

System	Neutral Water Recycling System	Alkaline Water Recycling System	Re-purification and Recycling Treatment System
Operating Method	Nan Ya PCB transports pH7 wastewater to the production plant's water scrubbers and utilizes the treated water for cleaning purposes, including use in dormitory areas.	Nan Ya PCB transports wastewater with a pH range of 9 to 10.5 to the production plant's water scrubbers for treatment and use.	Nan Ya PCB employs a continuous treatment process utilizing coagulation flotation, sand filtration, microfiltration, and reverse osmosis to remove residual COD, suspended solids (SS), microorganisms, and dissolved ions from the water.
Results and Benefits	1. 2024 Neutral pH Recycled Water Usage: 211 million liters/year 2. 2024 Alkaline pH Recycled Water Usage: 301 million liters/year		1. Directly supplement water for each plant and the pure water facility's clear water tank to reduce raw water usage. 2. 2024 RO System Water Recovery: 1,039 million liters/year

Nan Ya PCB has developed response strategies for potential short, medium, and long-term water scarcity scenarios, including countermeasures for insufficient water supply, rising water prices, and stakeholder conflicts over water resources. In 2024, the wastewater recovery rate for discharged water increased by 5% compared to 2023.

Water Saving

- Reduction of cleaning water at the process source.
- Reduction of water usage for domestic purposes.

Water Reuse and Recovery

- Recovery and purification of discharged wastewater for reuse as pure water.
- Reuse of alkaline wastewater in the acidic exhaust gas scrubber tower.
- Recovery of neutral wastewater for use in process cleaning operations.

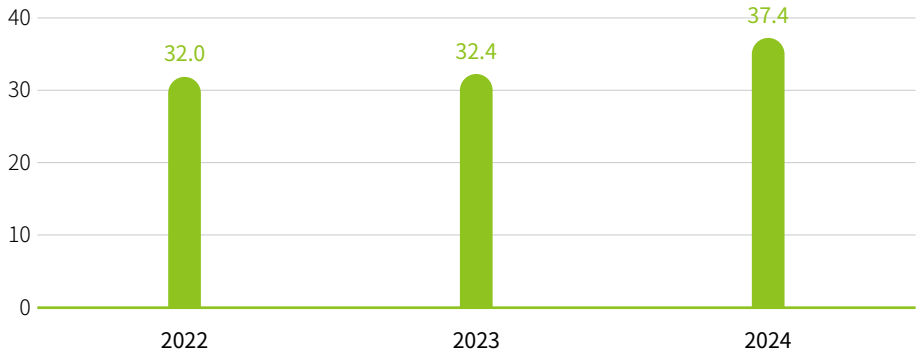
Recent 3-Year Discharged Wastewater Recovery Statistics

Item	2022	2023	2024 年
Recycled Water (Million Liters)	1,376	1,356	1,612
Recycled Water and Recovery Rate	32.0%	32.4%	37.4%

Note 1: Wastewater Recovery Rate = 〔(1-(Recovered Water Volume) / (Discharged Water Volume + Recovered Water Volume))*100〕

Note 2: Data Inclusion: The data for 2022 was not included due to the expansion and commissioning phase of the Tucheng Plant. Starting from 2023, the data has been included.

Trend Chart of Wastewater Recovery Rate for Discharge



Water Conservation Improvement Activities Completed in 2024

Improvement Method	Water Savings (Million Liters / Day)	Improvement Benefits (NTD Million)
Process Water Reduction	0.098	0.816
Process Condition Optimization for Water Conservation	0.233	2.242
A Total of 26 Process Water Reduction Projects	0.331	3.058

Water Conservation Improvement Activities Statistics for the Past 3 Years - Nan Ya PCB

Year	2022	2023	2024
Water Savings (Million Liters / Day)	0.271	0.170	0.331
Improvement Benefits (Thousands of NTD)	2,067	1,326	3,058

Note 1: Data Inclusion: The data for 2022 was not included due to the expansion and commissioning phase of the Tucheng Plant. Starting from 2023, the data has been included.

3.3.3 Wastewater Discharge

Nan Ya PCB' s wastewater treatment facility design concept primarily takes into account the characteristics of different types of wastewater and aims to ensure operational stability and ease of maintenance. The facility' s wastewater treatment processes and equipment are meticulously planned to cater to these factors. Additionally, a rigorous approach is employed in the design of source-separation wastewater piping systems to effectively treat wastewater and facilitate its subsequent recovery and purification for reuse.

Wastewater Treatment Equipment

Biological Treatment

Coagulation and Sedimentation Treatment

Chemical Reaction Treatment

All wastewater generated by Nan Ya PCB's manufacturing processes is strictly classified and managed at the source, either at the machinery or equipment level. The wastewater is then collected through dedicated piping systems for each type of wastewater treatment. The company also conducts daily sampling and testing of discharged wastewater to ensure that the treated water quality is well below the legal discharge standards. The 2024 inspection results, as summarized in the table below, comply with regulatory requirements.

2024 Wastewater Discharge Quality Testing Results

Item / Plant"	Testing Items or Test Parameters	Unit	Regulatory Standards	Test Results			Compliance with Standards or Does it meet the standards?
				Minimum Value	Average Value	Maximum Value	
Jinxing Wastewater Plant 1	Hydrogen Ion Concentration Index (pH)	–	6~9	7.1	7.3	7.6	Compliant or Meets
	Chemical Oxygen Demand (COD)	mg/L	<120	22.1	34.6	52.6	Compliant or Meets
	Suspended Solids (SS)	mg/L	<50	6.2	10.5	17.0	Compliant or Meets
	Copper Ion (Cu)	mg/L	<1.5	0.18	0.32	0.50	Compliant or Meets
Jinxing Wastewater Plant 2	Hydrogen Ion Concentration Index (pH)	–	6~9	7.6	7.8	8	Compliant or Meets
	Chemical Oxygen Demand (COD)	mg/L	<120	7.4	19.0	36.1	Compliant or Meets
	Suspended Solids (SS)	mg/L	<50	<2.5	3.6	4.8	Compliant or Meets
	Copper Ion (Cu)	mg/L	<1.5	0.41	0.52	0.70	Compliant or Meets
Shulin Wastewater Plant	Hydrogen Ion Concentration Index (pH)	–	6~9	7.2	7.5	7.7	Compliant or Meets
	Chemical Oxygen Demand (COD)	mg/L	<120	14.8	34.4	50.5	Compliant or Meets
	Suspended Solids (SS)	mg/L	<50	12.3	18.3	31.6	Compliant or Meets
	Copper Ion (Cu)	mg/L	<1.5	0.59	0.96	1.32	Compliant or Meets

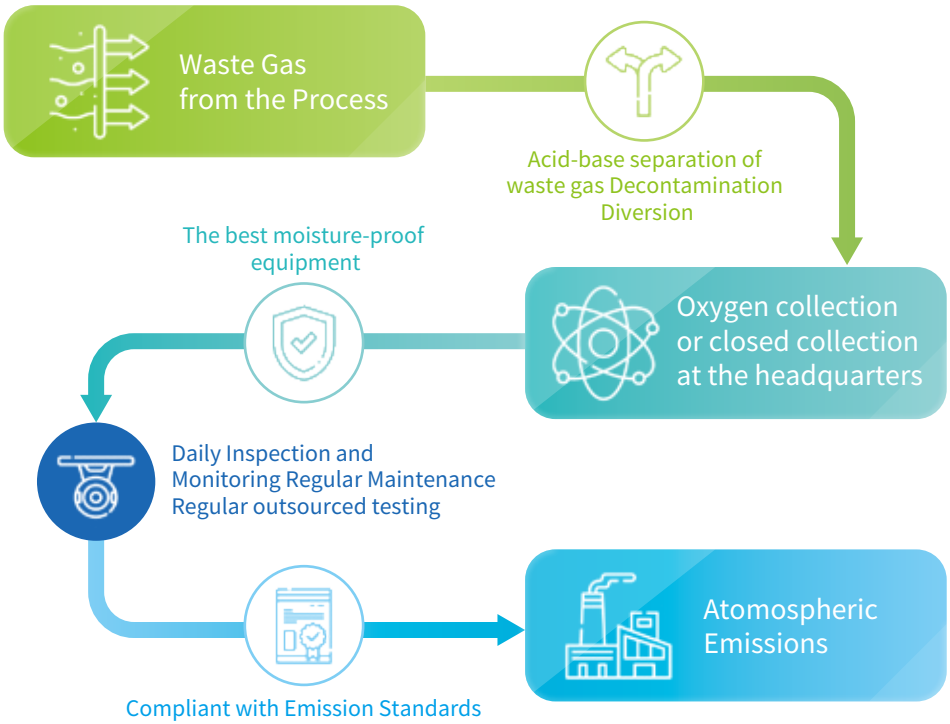
Note 1: The regulatory standard is "Appendix 5 of the Discharge Water Standards - Water Quality Items and Limits for Discharge Water in the Metal Basic Industry, Metal Surface Treatment Industry, Electroplating Industry, and Printed Circuit Board Manufacturing Industry."

3.4 Air Pollution Control

Nan Ya PCB' s primary sources of air pollution stem from the use of acidic, alkaline, and volatile organic compounds (VOCs) during the manufacturing process. In addition to implementing acid-base separation designs at the source within the exhaust gas collection pipelines, we have set up various air pollution control equipment tailored to the specific characteristics of different types of exhaust gases. These include packed bed scrubbers, baghouse dust collectors, and activated carbon adsorption towers.

To enhance odor and VOC treatment efficiency, the company has installed UV-C reactors, along with a pH anomaly alarm system in the packed bed scrubbers to promptly address system deviations, thereby improving the stability of exhaust gas treatment efficiency. Additionally, routine inspections, maintenance, and servicing of the equipment are conducted to ensure optimal performance. All flue gas testing results have consistently met legal discharge standards, with the test results publicly available on the Ministry of Environmental Protection' s "Stationary pollution sources of information disclosure management platform".

Exhaust Pollution Prevention Control Flowchart



Air Pollution Monitoring and Management

Management Item	Management Content	2024 Management Effectiveness
Odor and VOC Treatment	• Maintain the VOC removal efficiency of the UV-C control equipment.	• Regular self-inspection and maintenance to ensure consistent removal efficiency. • Achieved a VOC removal rate of 15%.
Process Emissions Collection	• Equipped with process emissions collection and disposal systems.	• All emissions are properly collected. • 100% compliance with discharge standards.
Monitoring (Inspection) Operations Management	• Conducted M09 emission pipeline inspection operations. • Daily online monitoring of emission conditions.	• A total of 13 emission pipelines under M09 have been inspected and meet equipment standards. • Annual monitoring results comply with emission regulations.
Community Feedback Response	• No resident complaints were received in 2024.	• There were no environmental inspections conducted by the Environmental Protection Bureau in 2024. • In line with the 2023 guidance team' s improvement initiatives, 6 out of 8 recommended measures have been completed, with 2 ongoing for continued improvement.

Air Pollutant Emission Statistics

Air Pollutant Emissions Statistics Table for the Past 3 Years – Southern Electric

Unit: Kilograms per Year

Item	2022			2023			2024		
	Plant		Total	Plant		Total	Plant		Total
	Jinxing Plant	Shulin Plant		Jinxing Plant	Shulin Plant		Jinxing Plant	Shulin Plant	
Nitrogen Oxides (NOx)	-	-	-	-	-	-	-	-	-
Sulfur Oxides (SOx)	-	-	-	-	-	-	-	-	-
Volatile Organic Compounds (VOC)	61,950	-	61,950	28,379	9,073	37,452	31,038	6,670	37,708
Particulate Matter (PM)	60	-	60	24	7	31	17	10	27
Persistent Organic Pollutants (POP)	-	-	-	-	-	-	-	-	-
Hazardous Air Pollutants (HAP)	-	-	-	2,083	0.37	2,083.37	841	0.23	841.23

Note1: Due to the expansion and trial operation at the Shu Lin plant in 2022, the data was not included, and it has been incorporated starting from 2023.

Note2: The Shu Lin plant obtained its Fixed Pollution Source Operation Permit in February 2023, and began reporting and disclosing data from the first quarter of 2023.

Note3: There are no emissions of nitrogen oxides (NOx), sulfur oxides (SOx), ozone-depleting substances (ODS), or persistent organic pollutants (POP) from the manufacturing processes at any of the plants.

Note4: The update of the Fixed Pollution Source Permit was only performed in 2023, hence the testing of hazardous air pollutants (HAP) was in accordance with regulatory requirements.

Note5: The disclosure of hazardous air pollutants (HAP) in 2023 was done for the first time, and based on the testing values, the annual operational amount was estimated. However, this estimate did not align exactly with the actual annual emissions, so the air pollution emissions were corrected to the quarterly reported values.

Air Pollution Control Equipment

3.5 Waste and Chemical Safety Management

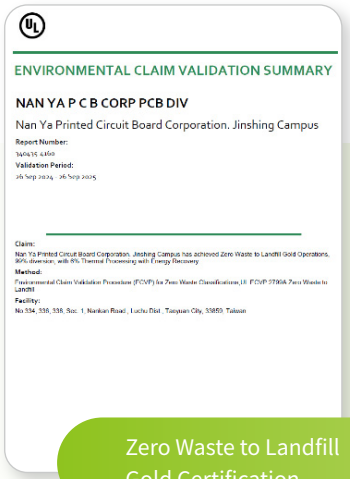
3.5.1 Waste Management (Material Topic)

Nan Ya PCB is committed to waste reduction, ensuring the most efficient use of resource materials. In addition to establishing numerous recycling points within the plant for resource waste segregation, continuous improvements in production processes and operations are made. The company first focuses on reducing waste at the source, then considers recycling for reuse, and finally implements waste classification and reuse to enable the circular utilization of resource materials.

Nan Ya PCB's waste includes process by-products, combustible waste, non-combustible waste, recyclable materials, and sludge, which may be hazardous or non-hazardous. If these are not properly classified and stored, incompatible chemical reactions, spills, or leaks may occur during storage, transportation, or disposal, leading to environmental pollution and regulatory penalties. In 2024, the total waste volume was 15,638 tons, a 56% reduction compared to the previous year. This decrease is primarily due to the completion of the Shu Lin plant expansion in 2024 after the trial run and expansion activities in 2023. The company will continue to implement waste reduction measures next year to meet its waste reduction goals.

In response to PAtek's green supply chain management, Nan Ya PCB commissioned UL, an international certification body, in 2024 to conduct a Zero Waste to Landfill certification for the Jinxing plant. The certification verifies that 100% of the waste generated during operations is diverted from landfills, with all waste processed through recycling, reuse, composting, or energy recovery (such as waste-to-energy incineration).

In line with this certification, the company actively presented its circular economy achievements, such as waste reduction at the source (e.g., replacing electroplating line plating boards with reusable stainless steel plates). Additionally, Nan Ya PCB tracks the waste treatment process and final disposal routes comprehensively. The verification results showed that 99% of waste follows zero landfill reuse pathways, including 6% incinerated for energy conversion, earning the company a Gold-level certification. Moving forward, Nan Ya PCB will continue to promote a circular economy, focusing on waste disposal for reuse and supplementing with waste-to-energy incineration, striving to fully align with the zero-waste-to-landfill principle.


ENVIRONMENTAL CLAIM VALIDATION SUMMARY

NAN YA P C B CORP PCB DIV

Nan Ya Printed Circuit Board Corporation. Jinshing Campus

Report Number:

Validation Period:

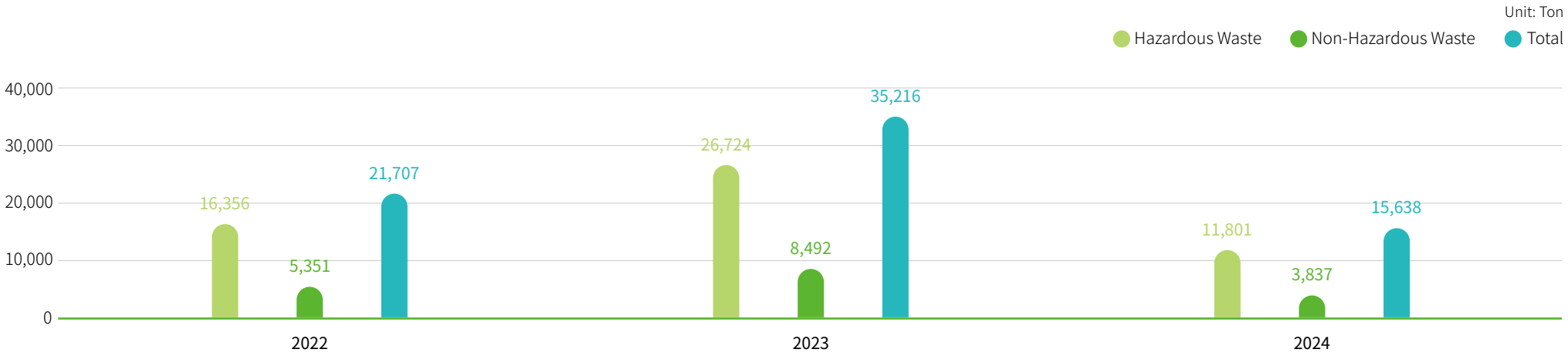
Claim:

Method:

Facility:

Zero Waste to Landfill Gold Certification

Trend Chart of Total Waste Volume for the Past 3 Years



Waste Composition in 2024

Unit: Ton

Plant	Category	Weight	Proportion
Jinxing Plant	Recyclable Waste	11,634	94%
	Incineration	710	6%
	Landfilling	0	0%
	Subtotal	12,344	100%
Shulin Plant	Recyclable Waste	2,635	80%
	Incineration	659	20%
	Landfilling	0	0%
	Subtotal	3,294	100%
	Total	15,638	100%

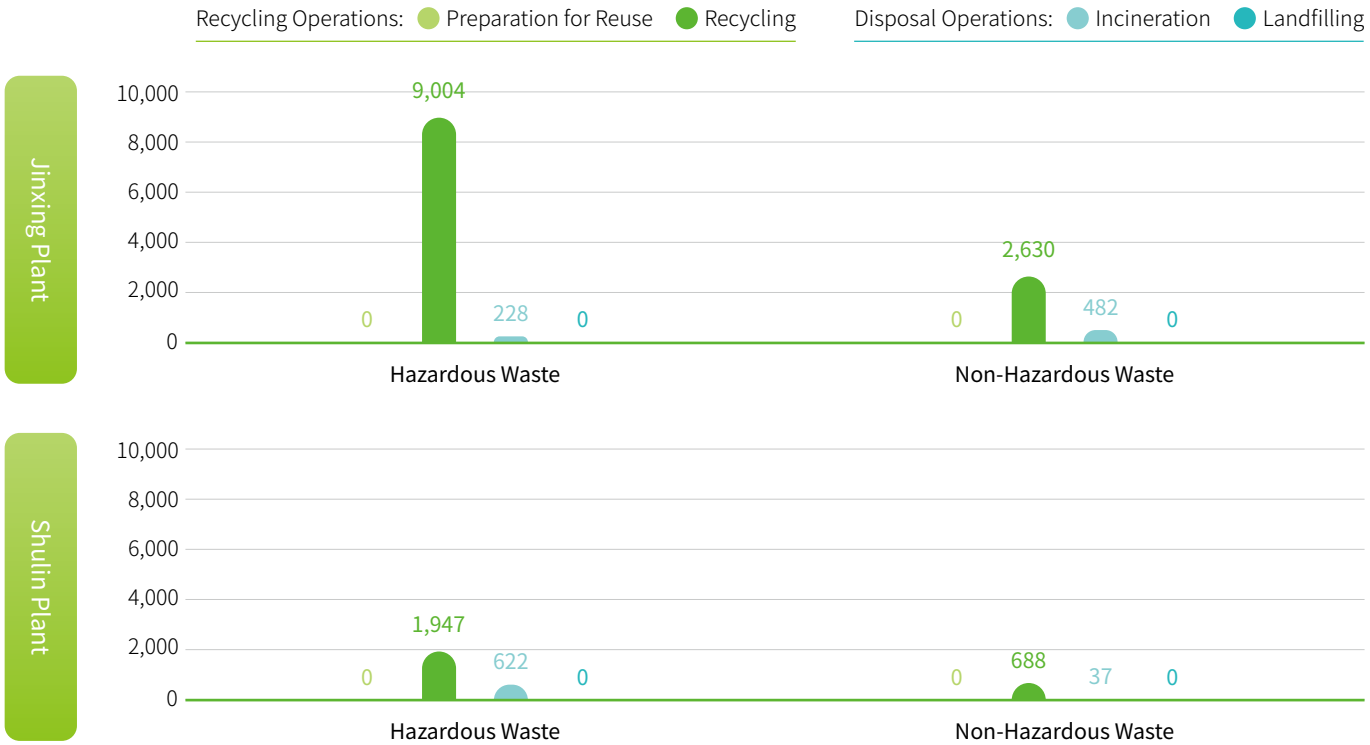
Nan Ya PCB entrusts qualified domestic waste disposal companies to handle the business waste generated at each of its plants, which is then sent to certified waste treatment facilities. In 2024, hazardous waste accounted for 75% of the total waste, while non-hazardous waste accounted for approximately 25%. To ensure proper waste disposal, regular on-site inspections are conducted, and in 2024, a total of 28 inspections were carried out, all of which were in compliance with regulatory requirements.

Waste Disposal Operations in 2024

Unit: Ton

Plant	Jinxing Plant				Shulin Plant				Total
Category	Recycling Operations		Disposal Operations		Recycling Operations		Disposal Operations		
Hazardous Waste	Preparation for Reuse	Recycling	Incineration	Landfilling	Preparation for Reuse	Recycling	Incineration	Landfilling	11,801
	0	9,004	228	0	0	1,947	622	0	
Non-Hazardous Waste	Preparation for Reuse	Recycling	Incineration	Landfilling	Preparation for Reuse	Recycling	Incineration	Landfilling	3,837
	0	2,630	482	0	0	688	37	0	

Note 1: Hazardous waste mainly includes copper-containing waste liquids, copper-containing sludge, and other hazardous industrial wastes such as corrosive materials.



In terms of resource recovery performance, Nan Ya PCB has continuously promoted various waste reduction measures. The unit output of non-recycled waste generation (non-recycled refers to waste treated by incineration or landfill) for 2024 has met the target. Moving forward, we will continue to implement various waste reduction and resource recycling measures, striving towards the goal of further reducing waste generation.

Waste Segregation and Collection

3.5.2 Chemical Safety (Material Topic)

Nan Ya PCB manages the use of toxic and concerned chemicals, primarily focusing on Category III cyanides (such as potassium cyanide and sodium cyanide) and Category IV toxic chemicals. In compliance with environmental regulations, the company manages and reports on the stages of purchase, transportation, use, storage, and disposal. To ensure proper handling, the company has established the following management policies:

Purchase
- Upstream suppliers' operating permits and approval documents for toxic chemicals
- Acquired in 2024

Shipping
- Toxic chemical transportation waybill
- Issued by upstream suppliers in 2024

Use
- Toxic chemical substance operation registration and approval documents for operational locations
- Obtained in 2024

Storage
- Operational records and locked storage management
- Ongoing operation

Surrounding Environmental Impact Assessment

In the cyanide operation area, if wastewater mixes with acidic substances, it may produce hydrogen cyanide (HCN), a highly toxic substance that could pose a risk to employees in the production area. To mitigate this risk, the operation area is equipped with a dedicated exhaust system to maintain a negative pressure in the production area, ensuring that it does not affect other areas. Additionally, a waste gas treatment system is installed at the exhaust outlet as a secondary protective measure to handle any potential HCN emergencies, ensuring a safe working environment.

On-Site Management Measures

When chemical raw materials are transported from outside the plant to the facility, all operations follow the plant's occupational health and safety management mechanisms and process management procedures. During the "use" and "storage" phases, various measures and protocols are established to ensure safe chemical handling. All personnel must adhere to the prescribed guidelines and inspection procedures to ensure safe chemical usage.

The plant has established an ISO 45001:2018 Occupational Health and Safety Management System, incorporating comprehensive hazard identification and risk assessment procedures (the plant's specification is the "Safety and Health Risk Management Operating Procedure/MASBP-160"). Using the "Plan-Do-Check-Act" methodology, the plant continuously implements improvements to control safety risks and eliminate exposure risks related to operational activities.

A. Usage Management

Professional Personnel	Dedicated Management Personnel	• For operations involving toxic chemicals that meet the large-scale operation criteria, the plant has established a "Toxic and Hazardous Chemical Dedicated Personnel" team within the process area. • The company has designated a total of 2 personnel to manage and oversee these operations.
	Professional Emergency Response Personnel	• The company has established dedicated areas for the use and storage of toxic and hazardous chemicals within the manufacturing process zones. • In response to the risk levels, the company has appointed and trained a total of 9 "Professional Response Personnel" to manage emergencies and ensure safety during operations.
Site Signage or Location Signage	Operational Site Signage	• The operational areas must display a summary of the following information on notice boards: ▶ Hazard Symbols ▶ Chemical Name ▶ Hazardous Components ▶ Warning Phrases ▶ Hazard Warning Messages ▶ Preventive Measures and Warnings or Supplementary Information
	Chemical Entry/Exit Location Signage	• For laboratories that operate below the threshold quantities for hazardous substances, the following labels must be displayed at the relevant entry and exit points of the operational areas: • "Toxic Chemical Substance Operation Area" • "Concerned Chemical Substance Operation Area" • "Toxic and Concerned Chemical Substance Operation Area"
	Chemical Piping Signage	• Piping systems should be clearly labeled at visible locations to indicate the direction of flow of toxic chemical substances. The labels must include the following information: • Flow direction of the toxic chemical substance • Chinese name • English name or abbreviation
Reporting Management	Safety Data Sheet (SDS)	• Safety Data Sheets (SDS): The Safety Data Sheets shall follow the statutory 16 mandatory sections. Manufacturers and importers are required to update the SDS at least once every three years to ensure the information is up-to-date and reflects the latest regulatory and safety standards. • Emergency Contact Information: The emergency contact numbers must be available for immediate access at any time. These contact numbers should be displayed in clearly visible locations within the operational areas, ensuring that personnel can easily access them in case of emergency or for consultation.
	Regular Reporting of Operational Records	• The personnel responsible for the operation of toxic chemicals must complete and submit the operation records for the previous month by the 10th of each month. This ensures that all toxic chemical usage and handling are properly documented and comply with regulatory requirements.
Emergency Response	Detection Alarm System and Emergency Response Tools/ Equipment	• Biannual Review: The emergency response equipment, detection systems, and alarm devices in toxic chemical operation areas should be reviewed every two years. A detailed setup plan should be submitted to the local competent authority for approval. • Regular Inspections and Maintenance: Emergency response equipment, detection, and alarm devices must remain in proper working condition. They should be inspected, maintained, and serviced monthly to ensure functionality. Additionally, backup supplies of disposable materials and equipment should be stocked at double the amount of personal protective equipment available. • Leak Detection and Alarm System: A leak alarm system should be installed beneath machinery. The system should include a liquid level sensor that detects leaks into spill containment trays. If the liquid continues to accumulate and reaches the level sensor, the alarm system will activate warning lights and a siren within 10 seconds. The alarm will only stop once the abnormal situation is resolved and the leak is cleared.

B. Storage Management

Labeling Regulations	1. Packaging and Labeling Requirements for Toxic Chemicals • For Containers Larger than 100ml: The packaging must be labeled with the following information: ▶ Hazard symbol ▶ Chemical name ▶ Hazardous components ▶ Warning phrases ▶ Hazard warning messages ▶ Manufacturer's, importer's, or supplier's name, address, and contact number • For Containers 100ml or Smaller: The labeling may only include: ▶ Chemical name ▶ Hazard symbol ▶ Warning phrase 2. The Safety Data Sheet (SDS) complies with the statutory 16 required sections. Manufacturers and importers are required to update the SDS at least every three years. Additionally, emergency contact numbers should be available for consultation at any time and must be clearly displayed in an easily accessible location within the operational area.
Regular Record Reporting	1. The operator of toxic chemicals is required to submit the operational records for the previous month by the 10th of each month. 2. Storage room operational records and storage room lock management records, with each usage record archived.
Detection Alarm System and Emergency Response Tools/Equipment	1. Emergency equipment, detection, and alarm systems should maintain normal functionality and be checked, maintained, and serviced once a month. Additionally, the quantity of disposable materials and equipment should be stored at twice the amount of the personal protective equipment. 2. The storage room is equipped with detection and alarm systems, along with an immediate warning reporting system. The system's functionality is tested monthly, and an external unit is commissioned annually for calibration.

Emergency Response Measures

To enhance disaster prevention and emergency response capabilities, Nan Ya PCB regularly conducts disaster response training, drills, and safety awareness programs. These activities include at least two unannounced emergency response tests and one comprehensive emergency drill annually. All related training and drill records are documented and retained for at least three years for future reference and regulatory inspection.

Given the acute toxicity of Category 3 toxic chemical substances, stricter safety controls have been implemented at storage locations. These include secured access control with mandatory locking mechanisms, requiring personnel to wear protective equipment when entering chemical storage rooms to minimize exposure risks. Additionally, alarm systems have been installed in production areas to provide real-time alerts. Emergency response drills involving toxic chemical incidents are conducted annually to ensure preparedness and operational effectiveness.

2024 Toxic Disaster Drill

Drill Date:

October 24, 2024

Participating Units/Participants:

Southern Electric Plant No. 5B / Southern Electric Plant No. 6 (Support) / Total of 19 Participants

Emergency Drill Record:

- Scenario Overview: A simulated incident was conducted at Nan Ya PCB's Plant 5B, within the palladium removal area. The exercise assumed a leak in a low-concentration chemical pipeline, resulting in the release of toxic cyanide substances. Due to the hazardous nature of the materials involved, external support was deemed necessary.
- Emergency Response Actions: In accordance with the company's emergency response protocols, the affected plant promptly contacted members of the Toxic Chemical Disaster Mutual Aid Group or other available support units to urgently borrow appropriate protective equipment. The plant then proceeded with its standard emergency response procedures, which included immediate containment actions, internal and external emergency notifications, and full coordination with external support systems.

2024 Unannounced Drill

Drill Date:

June 19, 2024

Participating Units/Participants:

Southern Electric Plant No. 5A / 10 Participants

Emergency Drill Record:

- Scenario Assumption: A simulated chemical emergency was conducted at Nan Ya PCB's Plant 5A, specifically in the palladium removal area. The drill assumed a leak in a low-concentration pipeline, leading to the release of toxic cyanide substances, necessitating external support.
- Response Procedure: Upon identifying the simulated leak, the plant promptly contacted members of the Toxic Chemical Disaster Mutual Aid Group or any other units capable of providing assistance to urgently borrow protective equipment. The plant carried out the internal emergency response according to established procedures, including emergency handling, internal notification, and external reporting.

2024 Unannounced Drill

Drill Date:

June 19, 2024

Participating Units/Participants:

Southern Electric Plant No. 5A / 10 Participants

Emergency Drill Record:

- Scenario Assumption: A simulated chemical emergency was conducted at Nan Ya PCB's Plant 5A, specifically in the palladium removal area. The drill assumed a leak in a low-concentration pipeline, leading to the release of toxic cyanide substances, necessitating external support.
- Response Procedure: Upon identifying the simulated leak, the plant promptly contacted members of the Toxic Chemical Disaster Mutual Aid Group or any other units capable of providing assistance to urgently borrow protective equipment. The plant carried out the internal emergency response according to established procedures, including emergency handling, internal notification, and external reporting.

3.6 Biodiversity

Nan Ya PCB is committed to minimizing the impact of its operations on the surrounding ecological environment and actively contributes to the preservation of local biodiversity. The Nankan River, which flows near the Jinxing Plant in Taoyuan and serves as the receiving body for the plant's treated wastewater, has long been a primary focus of the Company's environmental stewardship.

Recognizing the interconnectedness between our operations and the local environment, we have implemented a range of proactive initiatives to care for the ecosystem. These include organizing irregular annual river conservation activities and participating in government-led tree planting events. Through these efforts, Nan Ya PCB aims to contribute meaningfully to the protection and restoration of ecological diversity in the surrounding area.

Nankan River Environmental Protection Program

Nan Ya PCB's manufacturing facilities are located in areas designated by the government as Type II industrial zones, which are exclusively reserved for industrial use. These sites are not situated within or near any ecological conservation areas. Specifically, the Jinxing Plant is adjacent to the Nankan River, while the Shulin Plant is located near the Dahan River, as outlined in the table below.

Moving forward, Nan Ya PCB remains committed to continuously improving its processes and equipment to further reduce wastewater and air emissions, enhance treatment efficiency, and minimize the overall environmental impact of its operations.

Item / Plant	Operational Sites and Geographic Locations	Nearby National Parks and Protected Areas	Nearby Wildlife Protected Areas	Nearby Nature Reserves	Nearby Coastal Protection Areas
Jinxing Plant	Downstream of the Nankan River	X	X	X	X
Shulin Plant	Beside the Dahan River	X	X	X	X

Note: "X" indicates that Southern Electric is not located within the above-mentioned protected areas.

Nankan River Environmental Protection Program

Program Objective	Environmental Conservation of the Nankan River
Collaborating Units	Nan Ya PCB Environmental Volunteer Team
Field Scale	Nankan Creek - Downstream (Luzhu Guangming Park Riverside Trail)

2024 Stream Protection Achievements

- Annual Environmental Volunteer Stream Protection Activities: In 2024, two stream protection events were held on November 9 and November 24, with a total of 2,901 participants.
- Waste Reduction: Through these two stream protection activities in 2024, a total of 15 kilograms of waste was removed from the lower reaches of the Nankan Creek, contributing to the environmental preservation efforts.

Tree Planting Day Activities

Our company actively participates in the annual Tree Planting Festival organized by the local government. The event aims to promote green environmental practices and enhance ecological conservation. By planting trees, we contribute to strengthening the region' s environmental and ecological assets, which are vital to the community' s shared resources.

Tree Planting Day Activities

Program Objective	Tree Planting for Carbon Reduction
Collaborating Units	Local Government
Field Scale	Daxi Zhongzhuang Adjusting Basin

2024 Stream Protection Achievements

Participation in Local Government's Tree Planting Activities

- Local Government's Irregular Events: In 2024, the company responded and participated in one event held on March 10, with a total of 1,300 participants, including 15 employees from our company.
- 2024 Tree Planting Event: One tree planting event was organized in 2024, where we contributed to local greening efforts by planting 6 tree saplings and 1,100 shrubs. Additionally, 1,300 gardenia saplings were distributed to local residents for planting, further promoting the greening of the community.

4

chapter

Employee Care

Vision

NYPCB is committed to sustainability as its vision, aiming to provide employees with a safe and healthy working environment, robust training programs, and systems. We strive to establish comprehensive corporate governance to maintain excellence. Our goal is to foster diverse and open channels of communication with stakeholders, creating maximum value for investors, employees, society, and the nation.

Policy and Commitment

The Company supports and adheres to fundamental human rights principles, including the Universal Declaration of Human Rights, the International Covenants on Human Rights, the United Nations Global Compact, and the International Labour Organization’ s Declaration on Fundamental Principles and Rights at Work. We also comply with all applicable laws and regulations in the jurisdictions where we operate.

The company has established "Human Rights Policy" and "Diversity and Inclusion Policy" to comply with regulations, safeguard employees' basic human rights, and formulate reasonable and competitive salary, compensation, and welfare systems in accordance with the labor market. We provide employees with generous benefits, sound management systems, solid training, smooth career advancement, and complaint channels, aiming to attract top talents.

Material Topics

Benefits and Compensation

Framework & Indicator
- GRI 401 Employer and Employee Relations
- GRI 405 Employee Diversity and Equal Opportunities
- Specific Target5.1、5.4、8.5

Definition NYPCB provides an overview of employee recruitment status, employee welfare system, and the rate of return to work and retention after parental leave.

Management Action	2024 Action performance tracking	Achieve Overview	short-term target (1~3 Year)	medium,and long-term target (3 years or more)
Compliance with labor laws, reviewing and tracking improvements of violations.	1. Establishment of a violation review and corrective action tracking system. 2. One case of violation against the Labor Standards Act occurred in 2024; corrective actions have been completed and the management mechanism has been re-evaluated.	Not Achievement	• Zero violations of labor laws. • Tracking and improving cases of violations.	Zero violations of labor laws
Ensuring the company's overall compensation remains competitive in the talent market.	1. Regular salary review mechanism and implementation of performance-based bonuses. 2. The ratio of base salary between female and male employees in equivalent positions and job grades is approximately 1:1.18.	Achievement	• Minimum starting salary standard exceeds the legally mandated minimum wage. • Equal basic salary ratio between male and female employees in the same position or job grade is 1:1.	• Wage equality • Providing competitive salary levels
Providing comprehensive compensation, benefits, and promotion systems.	1. Implementation of a “Dedicated HR Support Personnel” system along with training programs across various stages. 2. Annual tracking of employee retention and turnover rates is conducted, accompanied by analysis and improvement strategies. In 2024, the employee retention rate was 98.9%, and the turnover rate was 1.1%, which is lower than the industry average.	Achievement	• Retention rate reaches 99.5%. • Turnover rate is below 1.5%.	• Matching excellent talents with suitable positions. • Stable manpower situation.

Stakeholder Groups	Communication Channels	Communication Effectiveness
Employees	• Quarterly communication through union meetings to discuss labor-management agreements and related issues. • Providing an online feedback platform, suggestion boxes, and a hotline for employees to submit feedback periodically.	• All feedback in 2024 has been taken into consideration and appropriately addressed.
Investors / Institutional Investors	• Collecting relevant feedback through the online feedback platform on a regular basis and publishing related information.	
Local Communities	• Using the online feedback platform to periodically gather input and publish relevant messages, particularly on community engagement topics.	
Media	• Using the online feedback platform to periodically collect relevant feedback.	

Material Topics

Occupational Health and Safety

Framework & Indicator • GRI 403 Occupational Safety and Health • Detailed objectives 3.4, 3.5, 8.8

Definition NYPCB's management of employees' working environment and health, and maintenance and management of office areas, factory areas and public safety.

Management Action	Action performance tracking	Achieve Overview	short-term target	medium,and long-term target
Accident investigation and troubleshooting	• A total of 3 occupational accidents occurred in fiscal 2024, all of which were investigated and improvement and prevention measures were proposed for the root causes of the abnormalities • No penalty notice from safety and fire authorities in 2024	Completion	• Continue to track accident investigation cases and solve problems • Increase the frequency of inspections at accident hotspots to eliminate situations where accidents may occur	Zero injuries, zero accidents, zero fines
Ensure the effectiveness of ISO 45001:2018 occupational health management system	1. Obtain ISO 45001:2018 system verification certificate 2. Convene the Occupational Safety and Health Management Committee every quarter to ensure the progress of various tasks	Completion	Continue to obtain ISO 45001 : 2018 Occupational Hygiene Management System Certification	Create a safe employment environment
Security observation and access rate	1. Quarterly employee visit rate 100 % 2. Establish an assessment list of high-risk individuals and include them in the assistance list	Completion	High health risk people, included in the watch list, 3 times/year	Import electronic forms to increase work efficiency

Stakeholder	Response and Results	Stakeholder
staff	• Convene the Occupational Safety and Health Committee quarterly to review occupational safety and health issues in the factory • Establish feedback and complaint channels	• 16 transformation projects were proposed at the meeting in 2024, 6 have been completed, and 10 are still being tracked • The grievance channels include complaint forms, supervisor mailboxes, and the company website for employees to provide feedback.
customer	• Respond to customers' requests for "Supplier Survey Form" from time to time • Provide safety and sanitation management and public safety issues according to customer requirements from time to time	• In 2024, 21 patient supplier surveys were responded to, Provide patients with safety, hygiene and health-related data

4.1 Employee Development

4.1.1 Diverse Employee Structure

In 2024, NYPCB had a total of 5,920 employees, including 5,911 full-time employees (accounting for 99.8%) and 9 non-regular employees on fixed-term contracts (accounting for 0.2%). Among the overall workforce, 87.3% were local employees and 12.7% were foreign workers, all of whom were Vietnamese nationals. The overall gender ratio was approximately 2:1 (male to female), with an average age of 41.3 years and an average length of service of 15.9 years.

Compared to 6,494 employees in 2023, the total headcount decreased by 574 employees, primarily due to the completion of phased expansion projects and a subsequent reduction in external recruitment.

Non-employee personnel at NYPCB are primarily contractors working within the facilities, responsible for services such as mechanical and electrical engineering, machinery operations, environmental cleaning, and kitchen services. Based on estimated working hours, the number of non-employees is approximately 78, resulting in a ratio of 98.7% employees to 1.3% non-employees.

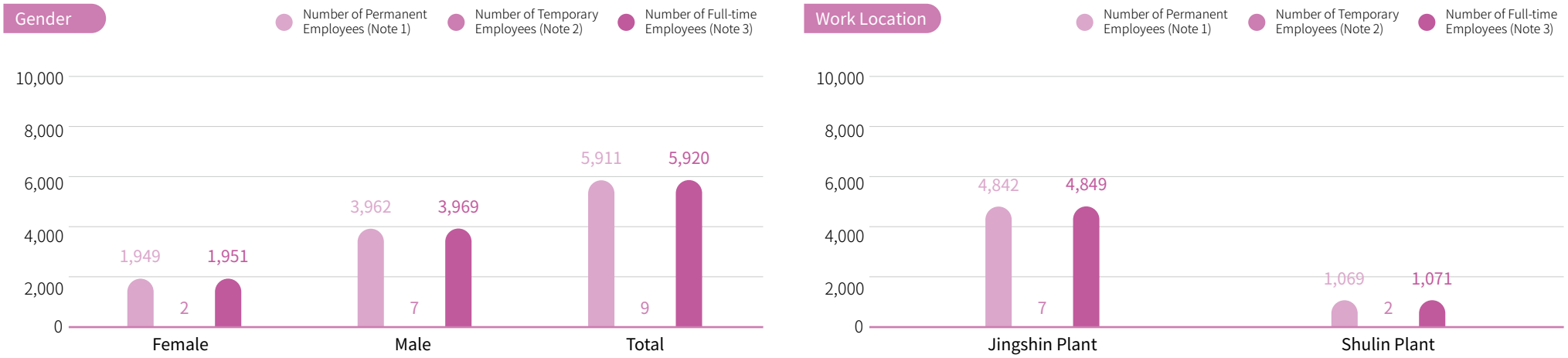
Manpower Structure Distribution in the Past 3 Years

Unit: Person

Year	2022					2023					2024				
Item	Gender			Work Location		Gender			Work Location		Gender			Work Location	
	Female	Male	Total	Jingshin Plant	Shulin Plant	Female	Male	Total	Jingshin Plant	Shulin Plant	Female	Male	Total	Jingshin Plant	Shulin Plant
Number of employees	2,303	4,572	6,875	6,274	601	2,164	4,330	6.494	5,510	984	1,951	3,969	5,920	4,849	1,071
Number of Permanent Employees (Note 1)	2,300	4,567	6,867	6,266	601	2,161	4,323	6,484	5,502	982	1,949	3,962	5,911	4,842	1,069
Number of Temporary Employees (Note 2)	3	5	8	8	0	3	7	10	8	2	2	7	9	7	2
Number of Full-time Employees (Note 3)	2,303	4,572	6,875	6,274	601	2,164	4,330	6,494	5,510	984	1,951	3,969	5,920	4,849	1,071

Note 1: Permanent employees refer to full-time or part-time staff under open-ended (i.e., indefinite) employment contracts.
Note 2: Temporary employees are those hired under fixed-term contracts. These contracts expire at a specific date or upon completion of a task or event with a defined timeline (e.g., the end of a project or the return of an employee on leave).
Note 3: Full-time employees are defined based on national labor laws and practices regarding standard weekly, monthly, or yearly working hours.
Note 4: The Company does not employ part-time or zero-hour contract workers.
Note 5: As of the last day of the reporting period, the total number of NYPCB employees in 2024 was 5,920, with no significant fluctuations observed.

Manpower Structure Distribution in 2024



Distribution of Non-Employees in the Past 3 Years (Note 1)

Unit: Person time / Hour / Person

Year		2022			2023			2024		
Item	Work Item	Person time	Hour	People	Person time	Hour	People	Person time	Hour	People
Contractor	Electrical Engineering	1,906	11,436	6	1,950	11,821	6	1,984	12,896	8
	Mechanical Engineering	683	47,810	24	6,700	49,900	25	6,944	45,136	28
	Environmental cleaning	35	58,016	29	35	58,016	29	35	58,016	29
	Kitchen Operations	27	42,080	21	25	38,096	21	21	26,104	13
Total		8,798	159,342	80	8,710	157,833	78	8,984	142,152	78

Note 1: The number of non-employees is estimated using the Full-Time Equivalent (FTE) method, calculated as:FTE (persons) = Total working hours / Daily working hours / Total working days per year.
Note 2: The total number of working days per year was estimated as 251 days for 2022, 253 days for 2023, and 250 days for 2024.

Workforce Diversity

NYPCB is committed to maintaining a diverse workforce by tracking and analyzing data across various dimensions such as job position, gender, and age, as part of its human capital management strategy. The company also upholds the rights of persons with disabilities by ensuring equal opportunities, promoting self-reliance and development, and complying with the People with Disabilities Rights Protection Act by employing the legally required number of individuals with disabilities.

As of the end of 2024, NYPCB employed 69 persons with disabilities (45 men and 24 women), representing a 23.2% increase compared to 2023.

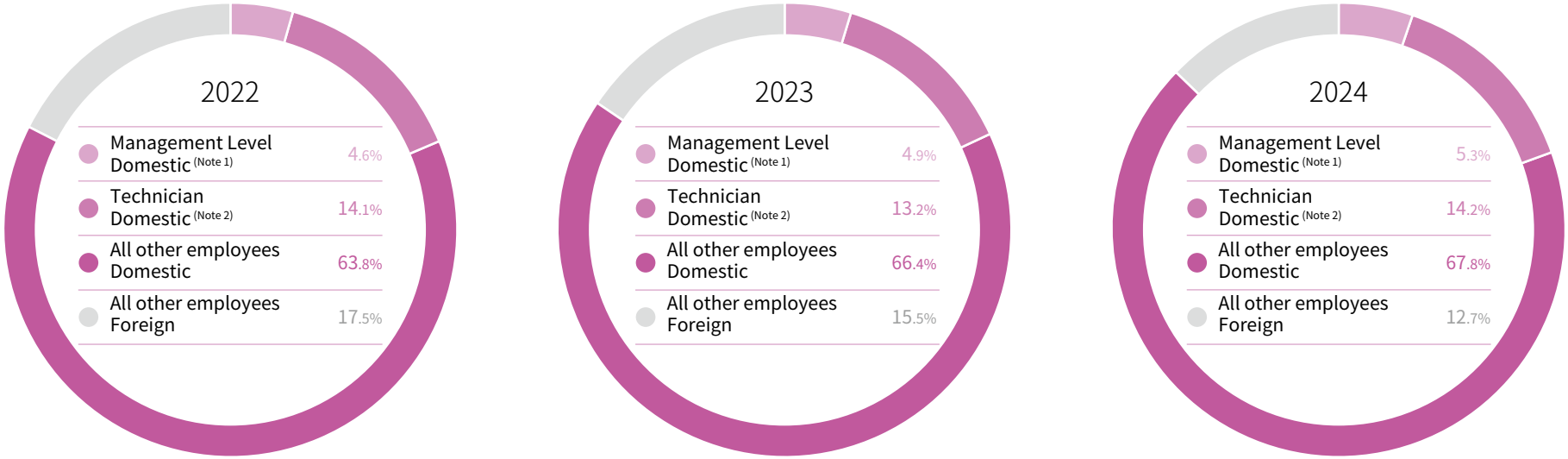
Workforce Diversity in 2024

Type	Group	Female		Male		Total(%)
		Number of Persons (Person)	Percentage of Group (%)	Number of Persons (Person)	Percentage of Group (%)	
Position	Management Level (Note1)	34	1.7%	277	6.98%	5.25%
	Technical Staff (Note 2)	171	8.8%	669	16.86%	14.19%
	All Other Employees	1,746	89.5%	3,023	76.17%	80.56%
	Total	1,951	100.0%	3,969	100.0%	100.0%
Age	Below 29 Years Old	532	27.3%	692	17.44%	20.68%
	30~39 years old	223	11.4%	636	16.02%	14.51%
	40~49 years old	852	43.7%	1,819	45.83%	45.12%
	50~59 years old	318	16.3%	751	18.92%	18.06%
	60 years and above	26	1.3%	71	1.79%	1.64%
	Total	1,951	100.0%	3,969	100.0%	100.0%
Service Year	<10 Years	711	36.4%	1,301	32.78%	33.99%
	11~30 Years	1,085	55.6%	2,472	62.28%	60.08%
	>30 Years	155	7.9%	196	4.94%	5.93%
	Total	1,951	100.0%	3,969	100.0%	100.0%
Education	Doctorate	0	0.0%	4	0.10%	0.07%
	Master	70	3.6%	248	6.25%	5.37%
	Bachelor	72	3.7%	330	8.31%	6.79%
	Other	1,809	92.7%	3,387	85.34%	87.77%
	Total	1,951	100.0%	3,969	100.0%	100.0%
Region	Domestic	1,527	78.3%	3,640	91.71%	87.28%
	Foreign	424	21.7%	329	8.29%	12.72%
	Total	1,951	100.0%	3,969	100.0%	100.0%
People with Disabilities		24	1.2%	45	1.13%	1.17%

Note 1: Management level refers to employees at or above the second-tier managerial level, totaling 311 persons.
Note 2: Technical staff refers to frontline supervisory personnel.

Nationality distribution of NYPCB employees in the past 3 years

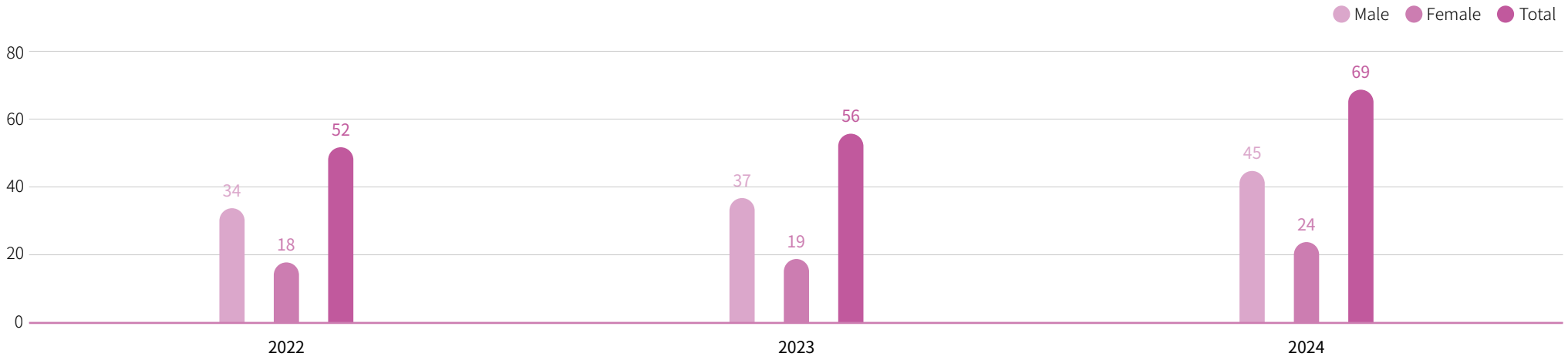
Unit:%



Note 1: "Management" refers to personnel at the level of second-tier supervisors and above.
Note 2: "Technical personnel" refers to frontline supervisory staff.

Headcount of Persons with Disabilities (Past 3 Years)

Unit: Person



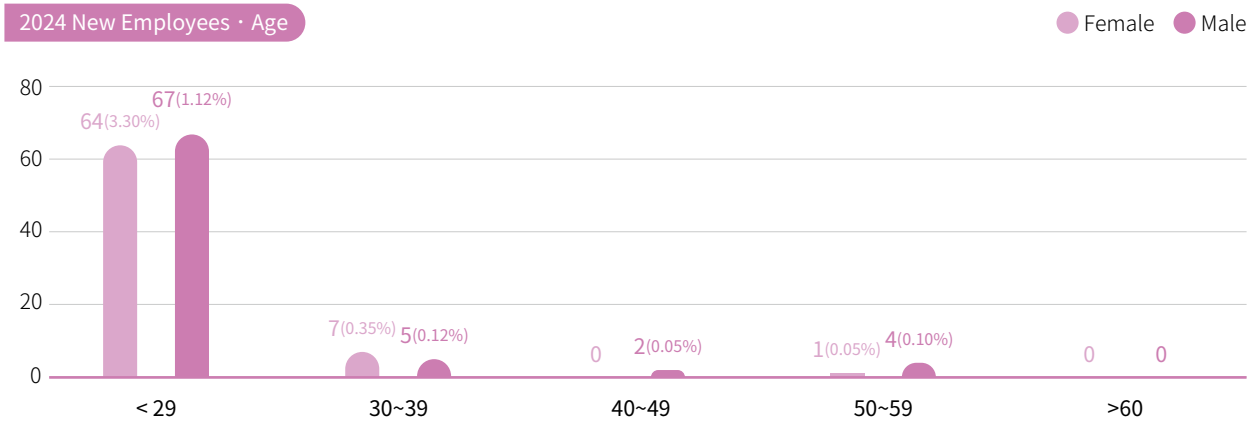
Age and Regional Distribution of New Employees

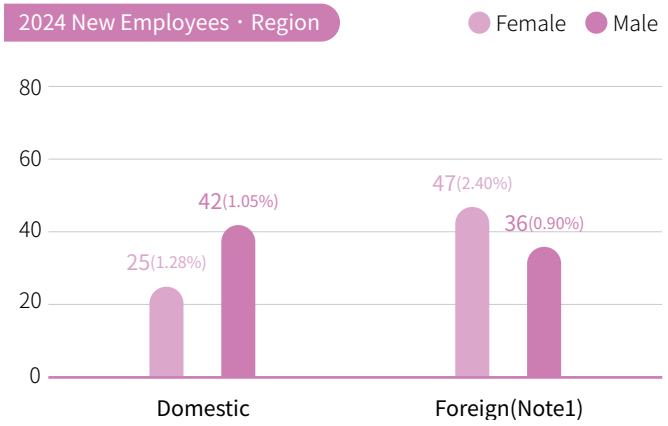
Age and Regional Distribution of Employees Who Resigned in the Past Three Years

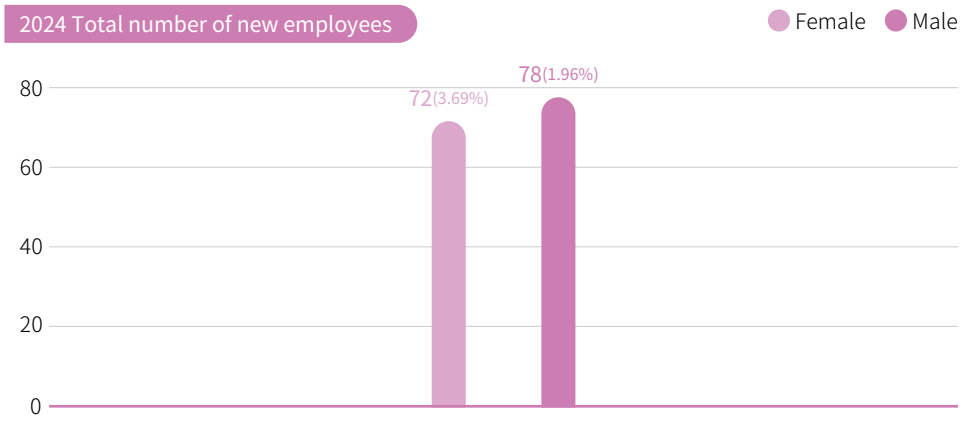
Unit: Person / %

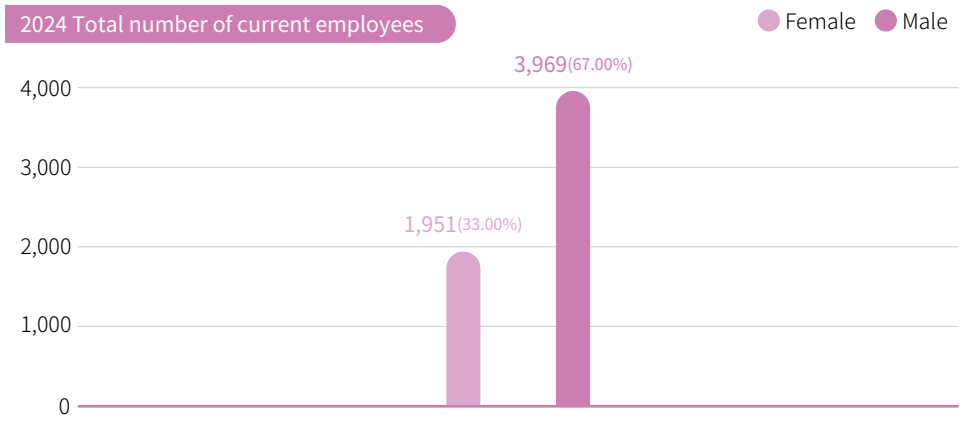
Year		2022				2023				2024			
Type	Group	Female		Male		Female		Male		Female		Male	
		Person	%	Person	%	Person	%	Person	%	Person	%	Person	%
Age	< 29	379	16.50%	567	12.40%	99	4.60%	138	3.20%	64	3.30%	67	1.12%
	30~39	79	3.40%	217	4.80%	8	0.40%	36	0.80%	7	0.35%	5	0.12%
	40~49	38	1.70%	97	2.10%	4	0.20%	14	0.30%	0	0.00%	2	0.05%
	50~59	1	0.00%	2	0.00%	0	0.00%	0	0.00%	1	0.05%	4	0.10%
	>60	0	0.00%	1	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
Region	Domestic	216	9.40%	655	14.30%	48	2.20%	170	3.39%	25	1.28%	42	1.05%
	Foreign(Note1)	281	12.20%	229	5.00%	63	2.90%	18	0.40%	47	2.40%	36	0.90%
Total number of new employees		497	21.60%	884	19.30%	111	5.10%	188	4.30%	72	3.69%	78	1.96%
Total number of current employees		2,303	34.40%	4,572	68.30%	2,164	33.30%	4,330	66.70%	1,951	33.00%	3,969	67.00%

Note 1: The region mentioned primarily refers to foreign employees from Vietnam, which is the main nationality of NYPCB's foreign workforce.







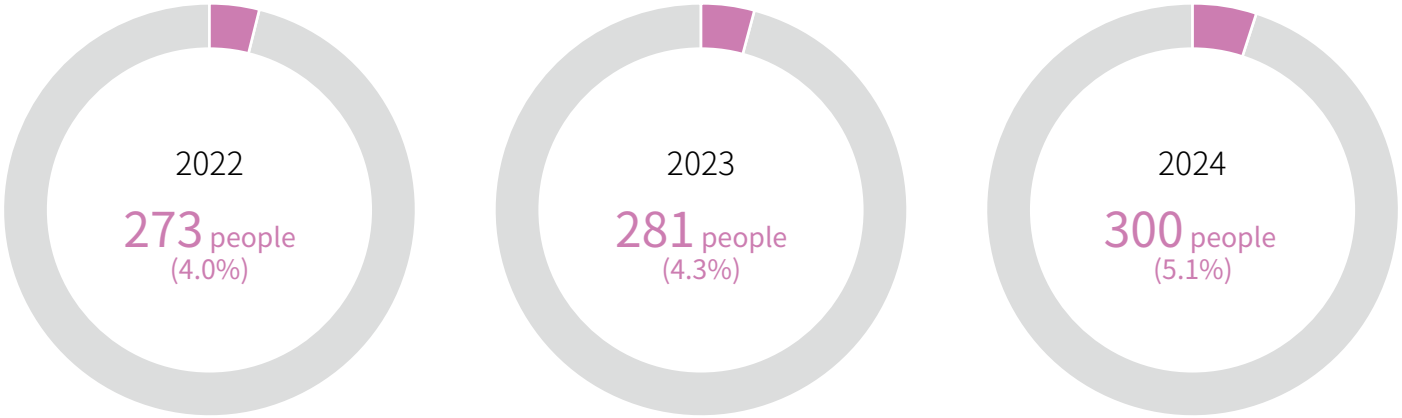


Proportion of Local Supervisors

NYPCB is committed to creating stable employment opportunities and prioritizes the recruitment of local residents for entry-level positions. The company also actively cultivates local talent to become competent supervisors. In 2024, a total of 300 local residents were employed as frontline supervisors, accounting for approximately 5.1% of the workforce—an increase of 0.8% compared to 2023.

Proportion of Local Residents Employed as Frontline Supervisors in the Past 3 Years

Unit: Person



Note 1: Frontline supervisors refer to employees at the engineer level or higher, whose registered domicile is in the same city or county as the plant.
Note 2: Local proportion (%) = The number of frontline supervisors (or higher) whose registered domicile is in the same city or county as the plant / Total number of full-time employees.

4.1.2 Employee Recruitment

NYPCB strengthens its human capital by actively utilizing both online and offline recruitment channels to hire professional talent.

Recruitment Channel: Campus Recruitment

1. In 2024, NYPCB participated in the campus recruitment fair at National Taiwan University, where senior executives, also alumni of the university, were invited to share their work experiences and encourage students, while promoting the company's recruitment information.
2. NYPCB also participated in the National Taiwan University Expo to promote the company' s recruitment information and invite outstanding talent to join the company.

Recruitment Channel: Industry-Academia Collaboration

To foster outstanding students, we collaborate with Ming Chi University of Technology and Chang Gung University, welcoming interns to gain practical experience and allowing current students to experience the professional workplace early. Through this program, we aim to impart industry knowledge and enhance their work-related skills.

4.2 Compensation and Benefits (Material Topic)

4.2.1 Employee Compensation and Benefits

In addition to complying with labor regulations, NYPCB participates in salary surveys and regional compensation forums to ensure that its overall remuneration remains competitive in the talent market.

For employees of the same position and job grade, the base salary ratio between female and male employees is approximately 1:1.18. Salary adjustments and promotions are based on individual performance, with corresponding remuneration adjustments. Among second-tier managers and above, the salary ratio between female and male employees is 1:1.37, with no evidence of gender-based pay inequality.

In 2024, the number of full-time, non-managerial employees (excluding those with less than six months of service) was 6,004. The total salary paid amounted to NT$4,846,868 thousand, with an average annual salary of NT$807 thousand and a median salary of NT$764 thousand. The decrease compared to 2023 was mainly due to a reduction in bonuses, impacted by overall business performance.

Gender Pay Ratio

Year	2022		2023		2024	
Job Level	Female	Male	Female	Male	Female	Male
Managers and Above	1	1.40	1	1.38	1	1.37
Supervisors and Below	1	1.17	1	1.18	1	1.18

Number of Non-Managerial Employees and Average Salary in the Past 3 Years

Unit: New Taiwan Dollar (NTD); %

Year	2022	2023(A)	2024(B)	Ratio Compared to the Previous Year (B/A)
Number of Full-Time Non-Managerial Employees (Persons)	6,252	6,559	6,004	-8.4%
Total Salary (Thousands of NT Dollars)	7,441,747	5,970,127	4,846,868	-18.8%
Average Annual Salary (Thousands of NT Dollars)	1,190	910	807	-11.3%
Median Annual Salary (Thousands of NT Dollars)	1,131	872	764	-12.4%

Standard Salary of Frontline Employees and Local Minimum Wage in the Past 2 Years

Unit: New Taiwan Dollar (NTD);

Year	2023		2024	
Gender	Male	Female	Male	Female
Monthly Salary of Frontline Employees (A)	37,214	30,750	37,214	30,750
Basic Wage Under Labor Standards Act (B)	26,400		27,470	
Ratio of Frontline Employee Standard Salary to Local Minimum Wage (A/B)	1.40	1.16	1.35	1.12

Note: The local minimum wage is calculated based on the annual basic wage announced by the Ministry of Labor.

Employee Benefits

NYPCB has established an Employee Welfare Committee in accordance with the Labor Welfare Fund Act, Regulations for the Organization of Employee Welfare Committees, and the Employee Welfare Association Establishment Measures. The company allocates funds to manage various employee welfare activities, including welfare associations, employee cafeterias, barber services, food services, libraries, health centers, sports facilities, movie screenings, holiday gifts, birthday vouchers, travel subsidies, life lectures, and outdoor activities such as hiking and club events.

For more details on our diverse welfare programs, please refer to the "Work and Life" section on our official website.

Work and Life

Employee Welfare Expenses in the Past 3 Years

Unit: TWD thousands

Item	2022	2023	2024
Employee Benefits Expenses (including salary, labor and health insurance, pension, and others)	8,610,443	6,693,739	5,620,512


Library


Barbershop


Employee Cafeteria


Billiard Room


Health Center

Bakery


Cinema


Table Tennis Room


Basketball Court


Employee Dormitory

Pension System

The company designs a pension system for employees in accordance with Taiwan's Labor Standards Act and the Labor Pension Act. In addition to the legally required pension reserve contributions, the company also conducts professional actuarial calculations for pension preparation to protect employees' future pension benefits and ensure sufficient contributions. Upon retirement, employees are entitled to claim the Labor Pension and Old-Age Benefits under the Labor Insurance, as mandated by law. Additionally, the company or the Employee Welfare Committee may grant reward bonuses or medals based on job positions to express gratitude for the employees' long years of service.

Item	Labor Pension	
	Old System	New System
Legal Basis	Labor Standards Act	Labor Pension Act
Contribution Rate	4% of the employee's monthly salary is contributed to the individual account as labor pension reserve	6% of the employee's monthly salary is contributed to the individual account as labor pension reserve
Employee Participation Rate	6.5%	93.5%
Eligibility Conditions	According to Article 53 of the Labor Standards Act	According to Articles 24 and 24-1 of the Labor Pension Act.
2024 Preparation Status	Compliance with legal requirements	Compliance with legal requirements

Note 1: The new pension system was implemented on July 1, 2005. Until June 30, 2010, the company allowed employees to choose between the new and old pension systems. Employees who joined the company on or after July 1, 2005, are directly subject to the new system.

The Company offers a variety of employee welfare benefits and incentives based on Formosa Plastics Group and are more generous than the requirements of government regulations. Details are as follows:

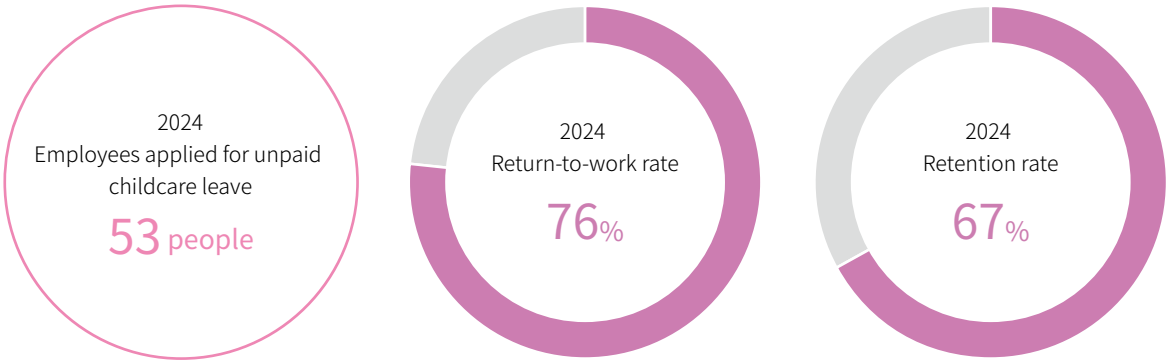
Leave Benefits
- Various types of leave provided
- Paid sick leave, bereavement leave for certain relatives, and typhoon leave exceed the standards set by labor laws

Insurance Benefits
- Labor Insurance and National Health Insurance
- Welfare committees at each site provide accidental and medical insurance, or offer access to various group insurance plans at preferential rates

Retirement Benefits
- Monthly contributions to the Labor Pension and pension reserves
- Pension paid in accordance with legal requirements upon reaching retirement eligibility; retirement gifts also provided

Marriage and Childbirth Benefits
- Monetary gifts for weddings and funerals
- Breastfeeding rooms available; parental leave and unpaid childcare leave policies in place

To continuously realize the vision of a happy workplace, Nan Ya PCB has established breastfeeding rooms and fully implements parental leave and unpaid childcare leave policies. In 2024, a total of 53 employees applied for unpaid childcare leave, with a return-to-work rate of 76% and a retention rate of 67%.



Number of Unpaid Childcare Leave Applicants, Return-to-Work Rate, and Retention Rate in the Past 3 Years

Unit: Number of People; %

	2022			2023			2024		
	Male	Female	Total	Male	Female	Total	Male	Female	Total
Number of Employees Eligible for Unpaid Childcare Leave	65	31	96	59	27	86	121	20	141
Actual Number of Unpaid Childcare Leave Applicants	8	18	26	34	23	57	34	19	53
Number of Employees Scheduled to Return to Work in the Year (A)	4	9	13	22	19	41	22	12	34
Number of Employees Who Applied to Return to Work in the Year (B)	4	6	10	14	19	33	17	9	26
Return-to-Work Rate (B/A) (%)	100	67	77	64	100	80	77	75	76
Number of Employees Retained for Over One Year After Returning	4	5	9	4	6	10	14	8	22
Retention Rate (%) (Note 1)	67	42	50	100	100	100	100	42	67

Note 1: "Retention Rate" refers to the percentage of employees who remain employed for more than one year after returning from unpaid childcare leave.

4.2.2 Employee Evaluation and Job Security

Employee Evaluation

All employees at NYPCB undergo regular performance evaluations in accordance with the company's Evaluation Guidelines. These evaluations are based on work performance, attendance, records of rewards and disciplinary actions, and the timeliness of task completion. The results are used to determine annual performance ratings, which serve as the basis for salary adjustments and year-end bonuses, and also as references for employee development, promotion, and transfer. Employees who receive a performance grade of D or E are required to have regular follow-up meetings with their supervisors to review improvement plans and progress. In 2024, 100% of employees received regular performance evaluations.

Strong Job Security

To respond to the rapidly changing business environment and continuous technological innovation, NYPCB continues to optimize management practices and streamline its organizational structure. However, with a strong commitment to protecting employees' job rights, even during the most challenging business conditions, the company prioritizes job security by implementing workforce integration strategies, such as internal transfers instead of layoffs. In recent years, NYPCB has maintained a low employee turnover rate of 1.1%, which is significantly lower than the 1.9% average turnover rate in Taiwan's electronic components manufacturing industry.

Comparison Table of Monthly Average Employee Turnover Rate: NYPCB and Industry

Unit：%

Year	2022	2023	2024
NYPCB	0.8	0.9	1.1
Taiwan's Electronic Components Manufacturing Industry	1.9	1.9	1.9

Data Source: Directorate-General of Budget, Accounting and Statistics (Time Series Data Query - Exit Rate) https://earnings.dgbas.gov.tw/query_payroll.aspx

Age Distribution of Departing Employees in the Past 3 Years

Unit: Number of People; %

Year		2022				2023				2024			
Item	Group	Female		Male		Female		Male		Female		Male	
		Number of people	ratio	Number of people	ratio	Number of people	ratio	Number of people	ratio	Number of people	ratio	Number of people	ratio
Age	< 29	163	7.1%	208	4.6%	171	7.9%	255	5.9%	204	10.5%	280	7.1%
	30~39	50	2.2%	84	1.8%	41	1.9%	74	1.7%	48	2.5%	91	2.3%
	40~49	23	1.0%	50	1.1%	24	1.1%	52	1.2%	22	1.1%	63	1.6%
	50~59	5	0.2%	22	0.5%	12	0.6%	31	0.7%	17	0.9%	26	0.7%
	>60	4	0.1%	10	0.2%	11	0.5%	23	0.5%	13	0.7%	15	0.4%
Region	Domestic	238	10.3%	337	7.4%	120	5.5%	297	6.9%	126	6.5%	313	7.9%
	Foreign (Note2)	7	0.3%	37	0.8%	139	6.4%	138	3.2%	178	9.1%	162	4.1%
Total Resigned Employees		245	10.6%	374	8.2%	259	12.0%	435	10.0%	304	15.6%	475	12.0%
Total Employees		2,303	33.5%	4,572	66.5%	2,164	33.3%	4,330	66.7%	1,951	33.0%	3,969	67.0%

Note 1:Turnover Rate = (Total Number of Employees Who Left the Company / Total Number of Employees) × 100

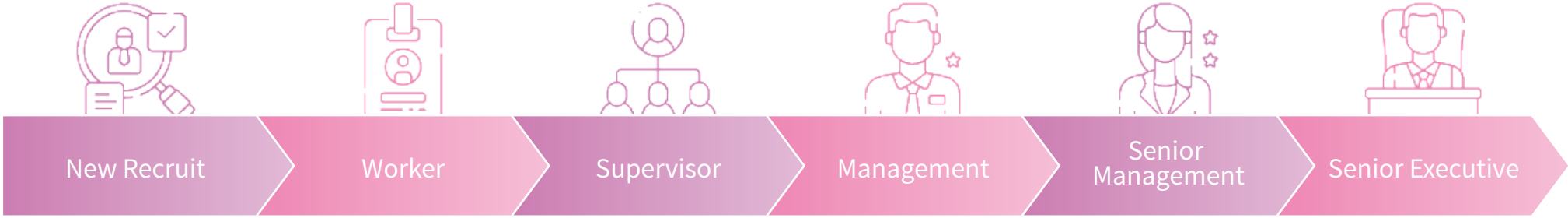
Note 2:Unless otherwise specified by region, the primary nationality of foreign employees is Vietnamese, which represents the main foreign nationality among NYPCB's international workforce.

4.3 Talent Cultivation and Development

4.3.1 Career Learning Map

NYPCB has a complete training and development system for the new recruits, and has created a quality working and learning environment to cultivate professional talents with innovative perspective and continuous improvement. At the same time, a comprehensive training plan for different stages of each employee' s career has been created to facilitate gradual improvement, allowing them to excel and become an outstanding and practical professional.

Career Development Road Map for Employees



New Recruit

Content of the Training
- Pre-employment training for new hires

Worker

Content of the Training
- Basic Job Training
- Professional Training
- Job Training
- Certifications Other courses (e.g.,lifestyle, health seminars)

Supervisor

Content of the Training
- Basic Job Training,
- Professional Training
- Training for management trainees
- Job training certification
- Other courses (e.g.,lifestyle, health seminars)

Management

Content of the Training
- Basic Job Training
- Professional Training
- Training for management trainees,
- New supervisor training
- Other courses (e.g.,lifestyle, health seminars)

Senior Management

Content of the Training
- Training for management trainees inter-functional training for mid-level managers
- New supervisor training
- Other courses (e.g.,lifestyle, health seminars)

Senior Executive

Content of the Training
- Cross-functional study
- Other courses (e.g., lifestyle, health seminars)

4.3.2 Employee Training and Development Overview

In 2024, in addition to on-the-job training organized independently by various departments, the General Manager' s Office Training Division coordinated company-wide professional training programs and leadership development courses. A total of 4,374 training sessions were conducted, with 10,027 participants (excluding executive management). The total number of training hours reached 263,135 hours, averaging 26.2 hours per employee.

The total training expenditure was approximately NT$5,445,863, representing a decrease of NT$12.73 million compared to 2023. This reduction was mainly due to a decrease in training costs related to the onboarding of migrant workers.

Average number of training hours for different types of employees in the recent 3 years

Unit: Hours / Person

Position	Year	2022	2023	2024
Senior Management	Total Number of People	77	79	116
	Total Number of Hours	324	430	403
	Average	4.2	5.4	3.5
Management	Total Number of People	233	228	330
	Total Number of Hours	1,282	2,660	2,074
	Average	5.5	11.7	6.3
Supervisor	Total Number of People	693	751	1,397
	Total Number of Hours	7,308	15,201	27,042
	Average	10.5	20.2	19.4
Worker	Total Number of People	5,684	5,402	8,184
	Total Number of Hours	94,522	134,843	233,616
	Average	16.6	25	28.5
Total	Total Number of People	6,687	6,460	10,027
	Total Number of Hours	103,436	153,134	263,135
	Average	15.5	23.7	26.2

Note1: The total number of employees does not include Senior Executives. The statistics are based on the headcount as of the end of December of the reporting year.

Average training hours employee in the most recent 3 years

Unit: Number of people, Hour, Hour/People

Year	2022		2023		2024	
Gender	Male	Female	Male	Female	Male	Female
Total Number of People (Person time)	4,440	2,247	4,318	2,142	6,512	3,515
Total Training Hour	70,543	32,893	103,656	49,478	172,294	90,841
Average(Hour / People)	15.9	14.6	24	23.1	26.5	25.8

Note1: The total number of employees does not include Senior Executives. The statistics are based on the headcount as of the end of December of the reporting year.

Training in Practice


Training Programs: Engineering (Management) Talent Development Program


Training Programs: Initial Training for Organic Solvent Operations Supervisors

4.4 Employee Communication and Care

Work and Life

4.4.1 Collective Bargaining

NYPCB has established an employee complaint system to improve collective bargaining, and formulated work and human resources management regulations to clearly stipulate the rights, obligations and management matters of both parties, so that employees can fully understand and protect their own rights and interests.

Communication Target	Communication Channel	Communication Resources		2024 Communication effectiveness
All employees	1. Face-to-face communication ▶ Regular meeting of trade union/welfare committee (board of supervisors/labor-management meeting) 2. Written communication ▶ Complaint form	Supervisors at all levels	Board of Directors and the Management	• Every day:Meeting • Every quarter: Occupational Safety and Health Committee Meeting, Labor Union Symposium • Irregularly: executive manager communicate with union representatives
	1. Human resources service team ▶ Announcement letter ▶ Internal Magazine Publications (electronic, physical books) 2. Employee Assistance Program ▶ Factory Management Office (promoting logistics support and welfare services) ▶ Employee Welfare Committee (periodic performance evaluation and satisfaction survey)	Human Resources Organization		• Every month: Employee Welfare Committee • Every two months: Internal Magazine Publications • Every year: Employee Satisfaction Survey • Irregularly: Management policy feedback
	Employee feedback box ▶ The 799 Hotline from the plant ▶ Physical suggestion mailbox, corporate information system (Online suggestion box)	System		• Irregularly: ▶ Physical suggestion mailbox and online suggestion box(Notes,Outlook) ▶ 799 Hotline from the plant

4.4.2 Employee Care

NYPCB continuously promotes many employee care programs to motivate employees, enhance employee benefits, and promote employees to achieve a balanced development in work, health, and life. For related content, please refer to the official website under "Work and Life".

NYPCB is committed to employee well-being and continuous improvement by offering a variety of support and incentive measures. In 2024, Human Resources counselors conducted 148 one-on-one counseling sessions throughout the year, providing systematic support to help employees address workplace stress, personal life, and family-related issues.

To foster a culture of proactive improvement, NYPCB also introduced a Suggestion Award Program, encouraging employees to identify anomalies and propose actionable improvement plans. Rewards were granted based on the effectiveness and implementation period of the accepted proposals. In 2024, a total of 618 improvement proposals were submitted, with NT$199,100 awarded in bonuses.

In addition, the company launched an Innovation Platform website that provides a professional space for employees to engage in knowledge sharing and discussion. Outstanding innovation proposals are recognized and rewarded appropriately to inspire creative thinking and enhance overall organizational performance.

Total number of improvement proposals in 2024
618 cases

Total amount of incentives awarded in 2024
NT$199,100

Item	2022	2023	2024
Total number of improvement proposals	395	467	618
Reward Amount (Unit: New Taiwan Dollars, NTD)	119,700	144,800	199,100

In addition, NYPCB provides Employee Assistance Programs (EAPs), which utilize counseling resources from the local government's Mental Health Center. Unit supervisors and colleagues can seek assistance from professional social workers and counselors regarding issues related to management, mental health, family, relationships, etc. This is aimed at reducing harm caused by human factors, natural elements, or improper handling.

4.4.3 Respect for Human Rights

NYPCB believes that every employee should be treated with fairness and respect, provides equal job opportunities, and protects the basic human rights of job seekers and every employee. No material investment agreements and contracts relating to human rights were made in the company in 2024.For the company's human rights protection, please refer to the official website under "Human Rights Policy and Specific Practices"

The company’ s labor employees have the option to freely participate in a union and representative candidate and can communicate openly with the company's management about work issues without fear of retaliation, threats or harassment. In 2024, the percentage of employees participating in the union within our company accounted for 66.2% of the total employee. The Company’ s labor union also holds regular director and supervisor meetings, and, to avoid colleagues' doubts, the Company does not intervene in the union’ s practical operations and member lists.Within the scope of compliance with law, we fully engage with and communicate extensively with the union, reaching consensus before making and implementing resolutions, which has greatly contributed to enhancing labor-management relations and planning employee welfare initiatives.

The Company’ s labor union has engaged in consultations with management through diverse and open communication channels. These include regularly convened Board of Supervisors and Labor-Management Meetings, as well as physical and written submissions for review and explanation. For major labor-management issues, the Company prioritizes listening to the union’ s opinions, with senior-level executives holding direct dialogue and negotiations with union representatives to reach a consensus. This approach embodies the spirit of the Collective Agreement Act, under which both labor and management are expected to conduct negotiations in good faith. It also ensures the protection of employees ‘ rights to collective bargaining. As a result, the labor union has never initiated a request for collective agreement negotiations with the Company, and no formal collective agreement has been signed to date.

The company holds regular quarterly union forums to facilitate exchange of opinions and address feedback from both labor and management. For colleagues who are not union members, designated representatives are assigned to attend these meetings. These representatives gather feedback in advance and incorporate it into the discussions during the meeting. After the meeting, the conclusions drawn from the discussions are communicated back to the participants for feedback. For example, representatives for foreign workers' opinions are appointed by the dormitory managers who are native speakers of their language, while feedback from worker is collected by respective performance group and then conveyed to the designated representatives.

The company regularly holds management communication meetings and publishes corporate magazine quarterly. Employees can also express their opinions through suggestion boxes, a sexual harassment prevention hotline, or a feedback hotline. In 2024, there were a total of four formal complaints related to human rights issues. The main complaints involved employee interactions, falsification of documents, and defamation. These cases were properly addressed through effective communication, and the related issues have been resolved and improved.

Human Rights Policy and Implementation Measures >

4.5 Occupational safety and health

4.5.1 Occupational health and safety (major topic)

Occupational Safety and Health Management System

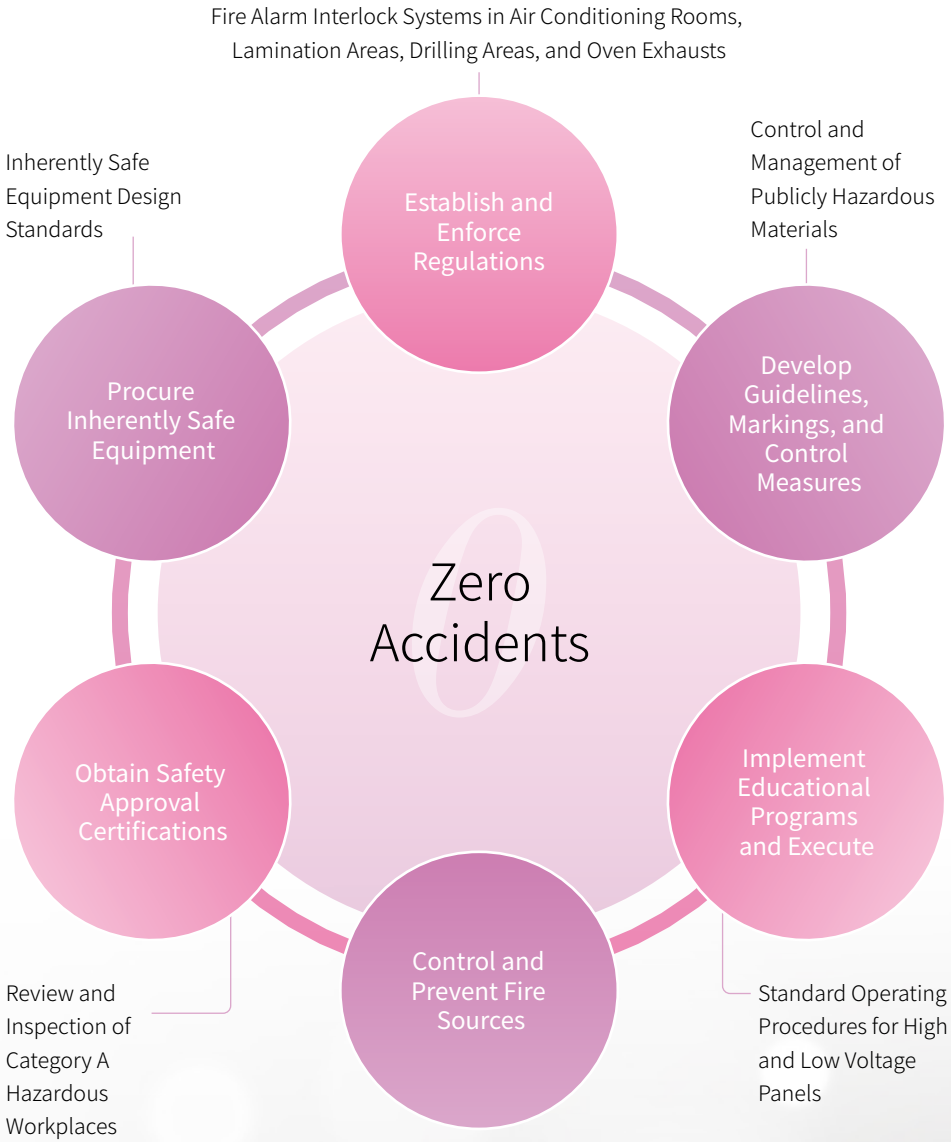
NYPCB promotes workplace safety and has published a list of occupational safety and health organizations. Each plant has set up an occupational safety and health committee (with workshop representatives accounting for more than 1/3) in accordance with legal supervision and regulations, and jointly participated in the optimization and improvement of the occupational safety and health system. It has obtained the ISO 45001:2018 Occupational Safety and Health Management System Certificate. The system covers 100% of all plant employees of the company, including 5,920 people (accounting for 98.7%) and contractors (non-employees) and contractors (1.3%) and contractor employees (accounting for 1.7%) and contractors (non-employees). In 2024, no major violations occurred among employees at any factory.

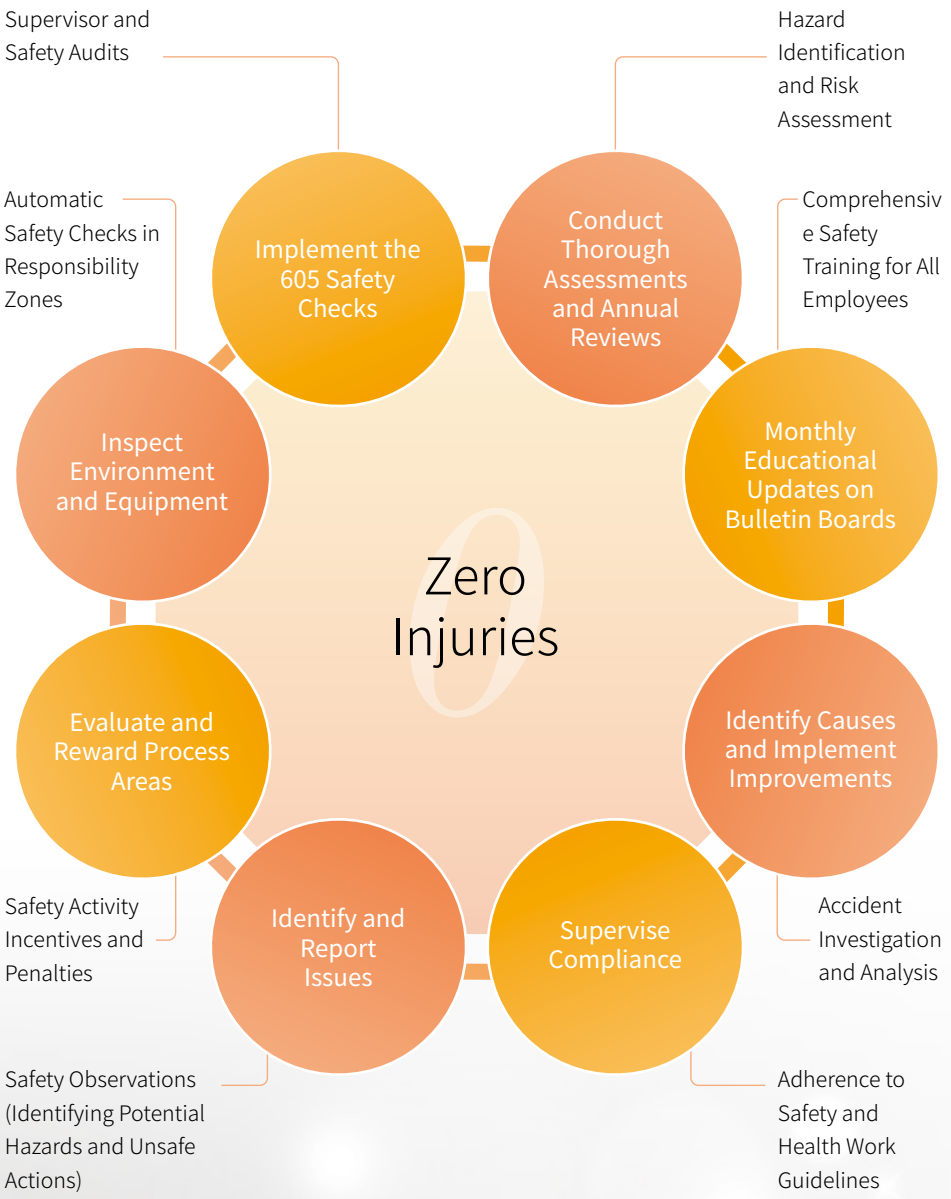
Occupational Safety and Health Committee

Membership	Labor representation ratio	Frequency of meetings
23 people	9 people / 39%	Quarterly

2024 Signing Topics

1. Effectiveness of safety and health management
2. Employee health promotion project
3. Detailed files of work environment improvement cases


Fire Alarm Interlock Systems in Air Conditioning Rooms, Lamination Areas, Drilling Areas, and Oven Exhausts
Inherently Safe Equipment Design Standards
Control and Management of Publicly Hazardous Materials
Establish and Enforce Regulations
Procure Inherently Safe Equipment
Develop Guidelines, Markings, and Control Measures
Zero Accidents
Obtain Safety Approval Certifications
Implement Educational Programs and Execute
Control and Prevent Fire Sources
Review and Inspection of Category A Hazardous Workplaces
Standard Operating Procedures for High and Low Voltage Panels

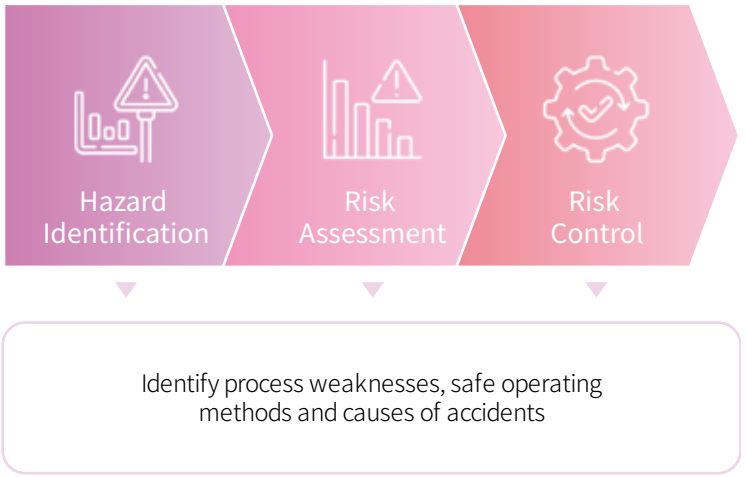

Supervisor and Safety Audits
Hazard Identification and Risk Assessment
Automatic Safety Checks in Responsibility Zones
Comprehensive Safety Training for All Employees
Implement the 605 Safety Checks
Conduct Thorough Assessments and Annual Reviews
Inspect Environment and Equipment
Monthly Educational Updates on Bulletin Boards
Zero Injuries
Evaluate and Reward Process Areas
Identify Causes and Implement Improvements
Identify and Report Issues
Supervise Compliance
Safety Activity Incentives and Penalties
Accident Investigation and Analysis
Safety Observations (Identifying Potential Hazards and Unsafe Actions)
Adherence to Safety and Health Work Guidelines

Damage risk identification and assessment

The company has established a systematic disinfection and risk assessment process to avoid unsafe environments or operating behaviors in the process. The risk assessment team shall include at least one person with a "Process Safety Assessor Certificate" qualification, with 82 hours of education and training per year, and shall be guided by the safety and health management personnel, and conduct reviews together with supervisors familiar with the process and equipment maintenance personnel. If there is any potential extinction or extinction risk, you can report it to your supervisor or submit it in violation of the "False Alarm Report Form". The investigation team will conduct an investigation and file a case to review the extent of the extinction impact and the possibility of occurrence, and determine the level of risk of major potential extinction. Then, the cause of the false alarm will be analyzed and feedback will be provided to revise the standard operating procedures (SOP), process conditions, DCS parameters, etc. to formulate process and content operation improvements, strengthen the safety of equipment in the factory, increase protective measures and strengthen management measures (such as self-inspection of key items in the factory, supervisor inspection points and production of teaching materials for drills, etc.).

In 2024, a total of 324 false alarms were raised, and cases have been filed for control, tracking and improvement, while continued activity is encouraged to leap forward and precise potential rescue. In addition, if an employee finds that the autonomous working environment is risky or requires rescue, or a place that may lead to rescue, he or she may make his or her own judgment and have no right to retreat safely to protect his or her own safety and avoid risks, and report through channels such as instant response of employees in each unit, communication meetings, IE proposals, and safety observations, and will not be punished for this.

Grinding and risk assessment process



Accident Investigation

The company has established a complete accident investigation process, including post-accident investigation, rectification, training and other processes, to continuously improve the incident situation and optimize the work process to effectively reduce the recurrence of similar incidents.

The accident happened

- 24- hour internal accident investigation team (depending on the scale of the incident)

Investigation Phase

- Visit relevant personnel
- Collect information
- Fault tree analysis cannot find the cause

Improvement measures

- Report investigation results and improvement measures to the chairman
- Tracking improvements

Professional Training

- Employees of relevant departments receive major anomaly investigation training
- Assign appropriate personnel to conduct cross-company / factory investigations as necessary

Health Risk Management and Assessment

Our company refers to the five major categories of the "Reference Guidelines for Occupational Diseases" of the Ministry of Labor, and based on our own industry and organizational characteristics, we have summarized the five major infectious factors that cause occupational diseases among employees, namely "social-psychological", "physical", "chemical", "biological" and "human factors", and actively provide management behaviors and track related performance.

Destructive Factor	Social Psychology	Physical	Chemical	Biological	Human Factors Engineering
content	Working hours, work pressure	Abnormal temperature, independent radiation, etc.	Among them, organic solvents, strong acids and bases, etc.	Microorganisms, infectious pathogens, etc.	Long-term muscle load
Industry Features	Overworked, middle and senior staff	Hazard Hazard, Hazard Hazard	Strong acids, strong bases, oxidizing substances, toxic chemicals	COVID-19 and epidemics	Repetitive muscle injuries
2024 Practice	Risk health check-ups and overtime hours are used to conduct obesity assessments, and high-level personnel provide work advice and follow-up to on-site doctors	1. Regularly monitor the working environment and health examine 2. Carry out hierarchical management and control based on monitoring and inspection results	1. Set up relevant sewage discharge measures and operation supervisors in accordance with the law 2. Regularly monitor the working environment and conduct health checks 3. Conduct hierarchical management and control based on monitoring and inspection results	1. Regularly announce information related to AIDS prevention and treatment 2. Establish countermeasures for each control stage	1. Implement a human poisoning prevention plan and make improvements for high-risk areas

Occupational accident statistics

In 2024 , three occupational accidents occurred at the Jinxing Factory. Subsequently, according to the accident investigation process, an investigation was conducted and a case was filed for improvement project tracking , including strengthening on-site management measures, increasing employee occupational safety education and training, and accident drills.

The accident happened

- January at Jinxing Plant : A colleague accidentally fell on the road in the plant
- July Jinxing Plant: Maintenance worker fell down the stairs
- November Jinxing Factory: An operator stepped on air and sprained his leg

The above incidents were investigated by the accident investigation team.

Investigation Phase

Looking back at the data from 2020 to 2023, there are no related events, which are abnormal occurrence types, as explained below:

- Analysis by event type: 2 falls, 1 sprain
- Review of basic reasons:
  - Lack of safety awareness among colleagues

Improvement measures

In response to the 2024 occupational accident incidents, the company implemented the following improvements:

- Improve the sewage diversion and blockage embankment on the side of the road, changing the vertical wall surface to a slope surface
- Strengthen workplace lighting to reduce environmental risks
- For high-risk work ladders, strengthen protection or improve work replacement (a total of 204 places)
- Implement and promote safety observations and interviews to enhance process supervisors' awareness of potential hazard discovery (a total of 1,980 cases were discovered in 2024)

Professional Training

We conduct case education for all occupational accidents to help our employees understand the causes of accidents and related safety precautions. In fiscal 2024, 5,830 people have completed relevant training.

Statistics of occupational accidents in the past three years

Unit: hour; person; item; ratio

year	2022		2023		2024	
category	staff	Contractor	staff	Contractor	staff	Contractor
Total working hours	12 , 090 , 496	418,600	13,992,704	208,000	10 , 662 , 608	150,784
Death toll	0	0	0	0	0	0
Number of disabled cases	0	0	0	0	3	0
Death rate caused by occupational injuries (Note 1)	0	0	0	0	0	0
Disabling Injury Severity Rate (Note 2)	0	0	0	0	0.28	0
Disabling Injury Frequency (Note 3)	0	0	0	0	7	0
Comprehensive injury index (Note 4)	0	0	0	0	0.04	0
Number of deaths caused by occupational diseases	0	0	0	0	0	0
Death rate caused by occupational diseases	0	0	0	0	0	0
Number of recordable occupational disease cases	0	0	0	0	0	0

Note 1: Occupational injury-caused death rate = Number of deaths caused by occupational injuries * 1,000,000 / Total working hours
Note 2: Disabling injury frequency = number of disabling injuries * 1,000,000 / total working hours
Note 3: Disability injury severity = number of days lost due to disability injury * 1,000,000 / total working hours
Note 4: Comprehensive injury index = $\sqrt{}$ disabling injury frequency * disabling injury severity / 1,000

Employee health care and promotion

Health promotion courses

including injury and disease diagnosis and treatment, preventive health care, smoking cessation consultation, etc.

2024 Implementation Results :

- The Health Center will announce relevant health information every month for all employees to know. The Shulin Plant has passed the Ministry of Health and Welfare's Workplace Health Certification Mark - Promotion Level in 2024 .
- Organize AED-CPR courses to help colleagues understand the key points of first aid

Health care

Cooperate with Chang Gung Medical Team to provide health check-ups and medical services for employees

2024 Implementation Results :

- Arrange more than 15 consultations per month by occupational medicine specialists to provide on-site medical consultation services. We also conduct employee health checks every year and launch health promotion programs for overworked, middle-aged and elderly people.
- Cooperate with local health centers to organize flu vaccination activities

Environmental testing

For process areas and offices, testing is performed every six months in accordance with the law

2024 Implementation Results :

All physical and chemical monitoring results are lower than the legal control standards

Employee insurance

Reduce the risk of major accidental injuries or accidents and arrange group accident insurance for employees

2024 Implementation Results :

in accident insurance and NT$50,000 in accident medical insurance to reduce medical expenses for colleagues

Physical and mental care

NYPCB Welfare Committee organizes various leisure activities from time to time

2024 Implementation Results :

Organize recreational activities such as hiking, shrimp fishing, bowling, basketball games, etc., and organize parent-child travel activities to increase parent-child interaction and care

4.5.2 Factory Public Safety

Supplier and contractor safety management

In order to prevent and mitigate major occupational safety and health risks and negative impacts arising from business relationships, Nanfang Electric has implemented a management mechanism for the entire process of contractor operations, including "Contractor Pre-entry Education and Training" every two years before entering the factory. As a necessary condition for pre-entry operations, the company regularly holds contractor pre-entry education and training courses on the first and third Fridays of each month. The content covers factory operation safety regulations, high-risk operation control requirements, environmental protection regulations compliance and emergency response, etc., and tests are implemented after the class to ensure that personnel fully understand the relevant requirements.

In addition, to strengthen daily operational safety, the supervisor presides over a "toolbox meeting" before starting work each day to re-instruct / supervise contractors and announce new measures or audit deficiencies to strengthen education and training, ensure that protective measures and staffing meet regulations, perform daily inspections and high-risk operations control during construction, reduce on-site occupational hazard risks, and evaluate contractors' safety and quality performance during construction after completion of the project as a basis for future cooperation and continuous improvement, in order to enhance the overall supply chain's occupational safety and health management level. No major work safety accidents occurred in the construction area in 2024.

Construction management methods

In order to prevent construction safety accidents, Nanfang Electric Power has continued to strengthen safety education and training for contractors, promote various contracting safety management systems, organize observation and seminars, and other businesses in recent years. In 2024, Nanfang Electric Power trained a total of 1,802 contractors .

In order to urge contractors to implement management, contractors are required to comply with the Labor Safety and Health Act and related laws, set up labor safety and health organizations and members, and require contractors to assign 1 to 5 full-time labor safety and health management personnel with qualified certificates and necessary qualifications for each construction project to ensure work safety and environmental hygiene when performing safety and health management activities at the construction site.

A. Before construction

Item	Operation steps	Responsible unit/person	Homework Project
1	Project Commission	Client	1. Open an order 2. Construction safety notice; establish workplace environment and potential hazards Factors and safety measures
2	Design Budget	Design Class	1. Safety considerations should be included in the budget during engineering design 2. Consider the actual safety facilities needed at the construction site and prepare a budget Provide manufacturers with quotation basis
3	Safety notice for contractors	Overseer	1. After the project is awarded, the contractor's site manager and the manufacturer's safety and health The manager informs the safety matters and signs for approval 2. Confirm that the construction personnel entering the factory have completed safety and health education and training, and have Complete computer system control 3. The person in charge of the contractor shall fill in and submit the " Contractor's Employees in Contract Work" "Injury and Disease Physical and Mental Status Questionnaire " 4. The contractor submits a Job Safety Analysis (JSA) for each case, educates the construction workers, and completes the signing of the JSA.
4	Factory Permit Application	Overseer	1. E-commerce manufacturers can apply for factory access certificates online 2. For manufacturers that have not yet gone electronic, the supervisory department shall input the file application
5	Factory entry permit issuance	Security Department	1. Construction safety notice (contract number) signed by construction personnel 2. Computer verification of the contractor's safety education and training before entering the factory (personnel code)
6	Construction Application	Overseer	1. Open a work safety permit application form and send it to the entrusting unit for signature 2. Supervisor Appointment
7	Construction Permit	Client	Safety Supervisor Appointment

B. Under construction

Item	Operation steps	Responsible unit/ person	Homework Project
1	Inspection of incoming machinery and equipment	Supervisor or Work Safety Officer	1. Dangerous equipment inspection 2. Check with electric appliances
2	Daily Toolbox Meetings	Overseer	Construction safety promotion
3	Construction safety supervision and control	Safety Supervisor	1. Confirmation and supervision of safety facilities and safety protection during construction 2. This is not an approved construction area, construction is prohibited and personnel are restricted from entering
		Factory safety personnel	3. During daily construction, the construction area and construction personnel are inspected for safety facilities and safety protection at irregular intervals.
		Overseer	4. Confirm and supervise safety facilities and safety protection before, during and after construction

C. After construction

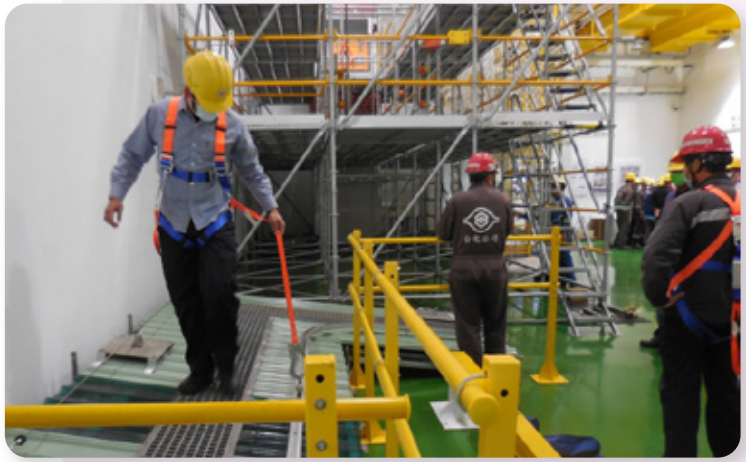
Item	Operation steps	Responsible unit/ person	Homework Project
1	Confirmation after construction	Client	1. Confirmation of completion of work environment cleaning 2. Confirmation of completion of business waste disposal
		Overseer	3. Daily construction personnel factory confirmation

Safety Supervisor Training

In order to ensure the safety of construction operations, our company has set up full-time engineering safety supervisors in each factory, which is superior to the provisions of laws and regulations. We hope that through dedicated supervision, we can remind manufacturers of construction safety at any time, inform them of correct construction safety behaviors, change manufacturers' safety concepts, and help supervise manufacturers to conduct independent safety management before, during and after construction, and actively protect the safety of contractors and processes.

In order to enable safety supervisors to effectively perform their functions, effectively teach manufacturers, and promote training courses to improve safety supervisors' professional knowledge and hazard identification capabilities, classroom training is combined with practical physical training to strengthen the professional capabilities of safety supervisors. From 2011 to 2024, a total of 405 people have received professional training in NYPCB.

Trained as a safety supervisor and actually wore a safety belt to conduct practical training on overhead work



Safety and health education

Most accidents are related to human error. Therefore, how to educate employees and enhance their safety awareness and ability to respond to emergencies is the primary focus of NYPCB's safety and health education and training. There are 95 sessions of work safety training courses offered in 2024 , with a total of 1,256 trainees and a total training time of 6,198 hours, with an average training time of 4.93 hours per person. For information on the 2024 course opening schedule, number of trainees, etc., please visit the official website " Training and Development " .

Training and Development

Number of occupational safety training courses offered and number of trainees in 2024

Course Title	Tiers	Number of visitors	Hours per person	Total hours
Training on the production, handling or use of hazardous materials	twenty four	716	3	2,148
Radioactive materials or operators that may produce ionizing radiation	3	38	18	684
Organic Solvent Operation Supervisor	6	32	18	576
On-the-job training for personnel handling radioactive materials or materials that may generate ionizing radiation	4	181	3	543
Specified Chemical Substances Operation Supervisor	6	26	18	468
On-the-job training for supervisors of organic solvent operations	3	40	6	240
Type A occupational safety and health supervisor	3	5	42	210
On-the-job training for first responders	3	63	3	189
First Responders	2	8	16	128
On-the-job training for Class B occupational safety and health managers	4	10	12	120
Grade B occupational safety and health manager	1	1	115	115
Firefighting live fire training	5	16	7	112
On-the-job training for supervisors working with specific chemical substances	2	35	3	105
Training for operators of forklifts with a load capacity of more than one ton	3	5	18	90

Course Title	Tiers	Number of visitors	Hours per person	Total hours
On-the-job training for operators of forklifts with a load capacity of more than one tonne	1	25	3	75
On-the-job training for fire prevention managers	4	10	6	60
On-the-job training for Class A occupational safety and health supervisors	4	9	6	54
On-the-job training for dangerous goods security supervisors	2	6	8	48
Process Safety Assessment Personnel Training	1	6	7	42
On-the-job training for Class A occupational safety and health managers	1	3	12	36
Hypoxic Operation Supervisor	2	2	18	36
Fire prevention manager	1	2	16	32
On-the-job training for nursing staff in the labour health service	2	2	12	twenty four
Supervisor of construction scaffolding and construction platform assembly operations	2	3	6	18
On-the-job training for process safety assessors	1	3	6	18
Aerial work vehicle operator	2	4	3	12
On-the-job training for supervisors of hypoxic operations	2	3	3	9
On-the-job training for operators who use lifting equipment for hanging	1	2	3	6
total	95	1,256	4.93	6,198

Emergency Response Mechanism

Phase 1

Urgent Danger Level

Limited to small leaks, fires, pollution and other disasters within the factory, and will not affect or spread to neighboring factories

illustrate

- The factory where the accident occurred shall independently carry out rescue work according to the "Factory Emergency Response Organization"
- The on-duty supervisor, day (night) supervisor or factory (section) manager of the accident department will serve as the on-site commander.

Phase 1

Urgent Danger Level

Major accidents or natural disasters such as large leaks, fires, explosions, or the tendency of the disaster to expand after self-response occur within the factory, which will affect or affect neighboring factories

illustrate

- The factory where the accident occurred requests the assistance of neighboring factories or relevant departments of the factory area to carry out rescue operations according to the "Factory Area Emergency Response Organization"
- The on-duty supervisor of the accident department, the day (night) supervisor or the factory (department) director shall ask the factory emergency response commander for assistance and carry out rescue.

Phase 1

Urgent Danger Level

Major accidents or natural disasters have spread outside the factory area, posing a serious threat to people outside the factory area

illustrate

- If a major accident or natural disaster has spread beyond the factory area and poses a serious threat to people outside the factory area, the factory emergency response commander or the head of the factory where the accident occurred will implement rescue efforts in accordance with the "Factory Emergency Response Organization"
- At the same time, request support from relevant central or local government agencies

Incident reporting process

Internal notification

The person who discovers the accident should report it to his immediate supervisor or the safety and health, fire protection specialists and the first-level director of the factory. On holidays or at night, he should report it to the factory day (night) supervisor or the factory (duty supervisor).

Factory and external notification

1. The accident unit shall have a dedicated person to report to the factory management unit, the security office, the general manager's office, etc.
2. If you need to request assistance from the local fire department or ambulance, the guard room will be responsible for reporting.

Relevant departments will be informed to respond

When producing, manufacturing, using and storing hazardous chemicals that may cause harm to neighboring plants if leaked, the neighboring plants should be classified into hazard levels according to the amount and severity of the leak, and the neighboring plants should be notified immediately when an accident occurs.

Disaster Drills

NYPCB has established detailed emergency response procedures and scheduled drill plans for various unexpected situations that may occur in the factory, such as earthquakes, fires, chemical leaks, natural disasters and other sudden incidents, and has carried out personnel training to familiarize them with response skills such as immediate notification, emergency response and disaster relief, on-site control, and treatment of casualties.

2024 Disaster Prevention Drill Results

Disaster preparedness training program	Training sessions	Number of participants
Disaster prevention drills (including escape drills)	10 sessions in total throughout the year	5,890 people

Real training photos

5

chapter

Social Contribution

Vision

Nanya PCB regards the spirit of "entrepreneurial founders giving back to society" as the core value of giving back to society. They have long been concerned about vulnerable groups in the country, sparing no effort in sponsoring education, healthcare, and social welfare projects. With the vision of "taking from society, giving back to society," they aspire to make the company a positive influence in the community, working together with society and local communities to create prosperous and beautiful homes, and sharing the achievements towards a sustainable and bright future.

Policy and commitment

Nanya PCB integrates relevant resources within the Formosa Plastics Group to fulfill its commitment to society with the principle of taking from society and giving back to society. They pledge regular and long-term investment in social welfare, reviewing its effectiveness annually and gradually expanding its influence according to local needs. This approach aims to achieve a vision of sustainable operation and mutual prosperity.

5.1 Harmonious neighborhood relations

5.1.1 "Factory and Township: One Big Family"

Nan Ya PCB has been deeply rooted in the local community for a long time. They have established neighborhood committees and volunteer teams within the factory area to foster communication and build mutual trust and support with residents through regular visits. Additionally, they extend their care to the elderly, children, and other vulnerable groups by assisting local welfare organizations in organizing festivals and charity bazaars. Encouraging employees to participate in environmental protection volunteering further contributes to their efforts in supporting the community and the planet. Nan Ya PCB hopes to spread seeds of love and hope throughout society by promoting various activities, aiming to create a warm and harmonious "factory and township: one big family" environment.

Each of our company's factory locations collaborates with local management departments to promote various neighborhood-friendly initiatives. Taking the Nan Ya factory site as an example, the substantial involvement and promotion of neighborhood-friendly initiatives in 2024 are as follows:

Item	Cooperative Units	Promotional Methods	Implementation Results in 2023
 Visits and Communications	1. Neighborhood Offices 2. Local Residents	1. Aperiodic visits to create communication channels. 2. Invitation to participate in factory activities to promote harmonious relationship	1. Jinxing Plant and Shulin Plant assisted Changxing Village, Dongshan Village, and Shanjia Village with meal provision applications for elderly service centers and underprivileged residents, supporting a total of 1,250 instances of assistance, with an estimated total cost of NT$379,000. 2. Shulin Plant organized a winter relief event for low-income households, supporting a total of 104 households in neighboring villages including Lingshan, Shanjia, and Zhongshan. A total donation of NT$9,296 was made, with 12 volunteers participating in the event.
 Charity Service	1. Charity Service Club Of the Welfare Committee 2. The Labor Union 3. Local charity groups	1. Regular visits to childcare centers and nursing homes,along with the collection of daily necessities and other materials to donate to social welfare organizations. 2. Collaborating with the Welfare Committee's Love Society and local Charitable organizations to organize charity bazaars, with all proceeds donated to vulnerable groups. 3. Assisting vulnerable groups in applying for emergency aid subsidies from the Formosa Plastics Group's "Hardworking Foundation."	1. Jin Xing and Shulin plants jointly organized 17 benevolence service activities, caring for the underprivileged and elderly in the community, as well as supporting institutions such as Ting Fang Development Center, Chan Xin Association, charity organizations, and fundraising for funeral expenses of disadvantaged families. A total of 3,070 participants were involved, with donations amounting to approximately NT$574,000. 2. Jin Xing and Shulin plants participated in the Huashan Foundation’ s Lunar New Year meal donation campaign, contributing NT$102,000 to support elderly individuals living alone. Additionally, the Employee Volunteer Club carried out seven benevolence service visits to care institutions, donating NT$169,000. The total amount donated was NT$271,000.
 Traditional Culture Promotion	New Taipei City Government (Shulin Plant)	Sponsorship for Local Lantern Festival Event Expenses	1. On February 15, 2024, a subsidy of NT$70,000 was provided for one large lantern display at the "Beauty of Shulin, New Taipei City –Lunar New Year Carnival Lantern Festival。
 Neighborhood Relationship	1. District Office 2. Neighborhood Offices 3. Community development associations	Actively participate in activities held by township offices, neighborhood offices，and community development associations in order to maintain good relationship between each other.	1. The total sponsorship amount is NT$657,000。
 Environmental protection volunteering	Plant employees and families	Plant employees and their families were encouraged to become volunteers of environmental protection works to maintain a clean place in plants as well as the surroundings.	1. Jin Xing Plant jointly organized 12 environmental volunteer activities, including street cleanups and hiking, with a total of 350 volunteers participating in the service。 2. On November 9 and November 24, a river conservation hiking activity was held at Luzhu Guangming Park Riverside Trail, with a total of 2,701 participants,including 2,465 employees and 236 family members。

Home Visits and Communication

- Jin Xing Plant provides meal ingredients and volunteer meal delivery services for the elderly in Changxing Village.

- Jin Xing Plant provides meal ingredients and volunteer meal delivery services for the elderly in Changxing Village.

- Jin Xing Plant collaborates with the Huashan Foundation to provide meal delivery volunteer services for elderly individuals living alone.

- Jin Xing Plant collaborates with the Huashan Foundation to provide meal delivery volunteer services for elderly individuals living alone.

Benevolence Service

- Jin Xing Plant participated in volunteer service activities at Taoyuan Loving Home.

- Jin Xing Plant participated in volunteer service activities at Taoyuan Loving Home

- Shulin Plant participated in volunteer service activities at Leshan Developmental Education and Care Center

Environmental Volunteers

- 2024 Taoyuan City Arbor Day Volunteer Activity

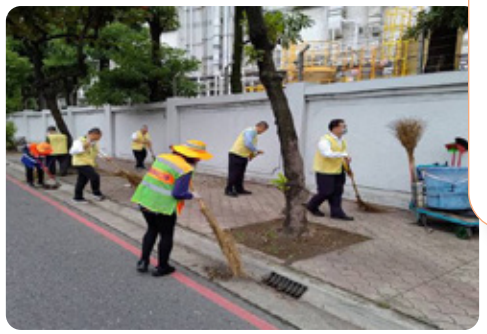
- 2024 Taoyuan City Arbor Day Volunteer Activity

- Volunteer Activity for the Promotion and Removal of Mikania Micrantha

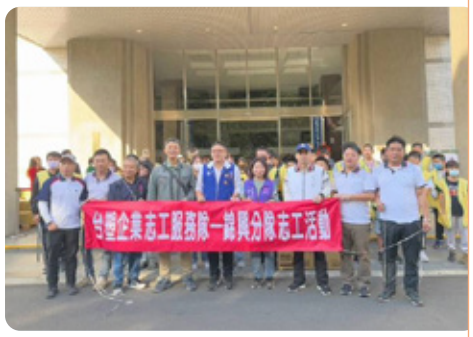
- Volunteer Activity for the Promotion and Removal of Mikania Micrantha

- Street Cleaning Volunteer Activity

- Street Cleaning Volunteer Activity



- Street Cleaning Volunteer Service Activity along the Nankan River Hiking Trail



- Street Cleaning Volunteer Service Activity along the Nankan River Hiking Trail

Attachment 1: GRI Standards Comparison Table

Statement of use	NYPCB has reported the 2024 Sustainability Report in accordance with the GRI Standards for the period from January 1 to December 31, 2024.
GRI 1 used	GRI 1: Foundation 2021
Applicable GRI Sector Standard(s)	N/A

GRI 2: General Disclosures

Disclosure	Corresponding Section
2-1 Organizational details	About This Report 1.1.1Company Profile
2-2 Entities included in the organization's sustainability reporting	About This Report
2-3 Reporting period, frequency and contact point	About This Report
2-4 Restatements of information	2.1.1 Board of Directors Operations 3.1.2 Environmental Accounting 3.2.5 Greenhouse Gas and Energy Management 3.4 Air Pollution Control Appendix II: Sustainability Accounting Standards Board (SASB) Index
2-5 External assurance	About This Report Attachment 4: Assurance Statement
2-6 Activities, value chain and other business relationships	1.1.2 Market overview and development vision 1.3.4 1.4.3Impact Identification and Value Chain 2.5.1 Supplier and contractor management
2-7 Employees	4.1.1 Diverse Employee Structure
2-8 Workers who are not employees	4.1.1 Diverse Employee Structure
2-9 Governance structure and composition	2.1.1Functions of Board of Directors
2-10 Nomination and selection of the highest governance body	2.1.1Functions of Board of Directors
2-11 Chair of the highest governance body	2.1.1 Functions of Board of Directors
2-12 Role of the highest governance body in overseeing the management of impacts	2.1.1 Functions of Board of Directors
2-13 Delegation of responsibility for managing impacts	About This Report
2-14 Role of the highest governance body in sustainability reporting	About This Report 2.1.1 Functions of Board of Directors
2-15 Conflicts of interest	2.1.1 Functions of Board of Directors 2.1.3 Ethical Management
2-16 Communication of critical concerns	2.1.4 Legal Compliance
2-17 Collective knowledge of the highest governance body	2.1.1 Functions of Board of Directors
2-18 Evaluation of the performance of the highest governance body	2.1.1 Functions of Board of Directors

Disclosure	Corresponding Section
2-19 Remuneration policies	2.1.1 Functions of Board of Directors
2-20 Process to determine remuneration	2.1.1 Functions of Board of Directors
2-21 Annual total compensation ratio	2.1.1 Functions of Board of Directors
2-22 tatement on sustainable development strategy	About This Report
2-23 Policy commitment	1.Sustainable NYPCB 2.Governance 3.Environment Friendly 4.Employee Care 5.Social Welfare
2-24 Embedding policy commitments	1.Sustainable NYPCB 2.Governance 3.Environment Friendly 4.Employee Care 5.Social Welfare
2-25 Procedures for Remediating Negative Impacts	2.1.3 Integrity in Business Operations 2.1.4 Compliance with Laws and Regulations 2.5.2 Supplier and Contractor Evaluation and Classification 3.5.2 Chemical Safety 4.2.1 Employee Compensation and Benefits 4.5 Occupational Health and Safety
2-26 Mechanisms for seeking advice and raising concerns	2.1.3 Ethical Management 2.1.4 Legal Compliance 2.4.1 Customer Service 2.5.2 Supplier(or Contractor) Evaluation and Classification 3.1.1 Environmental protection policy 4.4 Employee Communication and Care 4.5.1 Occupational Health and Safety
2-27 Compliance with laws and regulations	2.1.4 Legal Compliance
2-28 Membership associations	1.1.1 Company Profile
2-29 Approach to stakeholder engagement	1.3.2 Stakeholder Communication
2-30 Collective bargaining agreements	4.4.3 Respect human rights

GRI Topic Standards

Topic	Comparison of GRI Indicators	Corresponding Section	Omission / Note
Management Policy	3-1 Process to determine material topics	1.4.1 Process for Identifying Significant Themes	
	3-2 List of material topics	1.4.3 Impact Identification and Value Chain	
Material Topics: Operational Financial Performance			
Management Policy	3-3 Management of material topics	1 Sustainable NYPCB 1.4.3 Impact Identification and Value Chain	
201 Economic Performance	201-1 Direct economic value generated and distributed	1.1.3 Financial Performance	
	201-2 Financial implications and other risks and opportunities due to climate change	3.2 Climate Change Action	
	201-3 Defined benefit plan obligations and other retirement plans	4.2.1 Salary and Benefit	
Material Topics: Integrity in Business Operations			
Management Policy	3-3 Management of material topics	1.4.3 Impact Identification and Value Chain 2. Governance	
205 Anti-corruption	205-1 Operations assessed for risks related to corruption	2.1.3 Ethical Management	
	205-2 Communication and training on anti-corruption policies and procedures	2.1.3 Ethical Management 2.5.1 Supplier and Contractor Management	
	205-3 Incidents of corruption confirmed and actions taken	2.1.3 Ethical Management	In 2024, no incidents of corruption occurred.
206 Anti-competitive behavior	206-1 Legal actions for anti-competitive behavior, anti-trust, and monopolistic practices	2.3.3 Employee Conduct and Ethics	In 2024,no incidents of anti-competitive behavior occurred.
Material Topic: Operational Risk Management			
Management Policy	3-3 Management of material topics	1.4.3 Impact Identification and Value Chain 2. Governance	

Topic	Comparison of GRI Indicators	Corresponding Section	Omission / Note
Material Topic: Climate Change Mitigation and Adaptation			
Management Policy	3-3 Management of material topics	1.4.3 Impact Identification and Value Chain 3.Environment Friendly	
201 Economic Performance	201-2 Financial Implications and Other Risks and Opportunities Due to Climate Change	3.2 Climate Action	
305 Emissions	305-1 Direct (Scope 1) GHG emissions	3.2.5 Greenhouse Gas and Energy Management	
	305-2 Energy indirect (Scope 2) GHG emissions	3.2.5 Greenhouse Gas and Energy Management	
	305-3 Other indirect (Scope 3) GHG emissions	3.2.5 Greenhouse Gas and Energy Management	
	305-4 GHG emissions intensity	3.2.5 Greenhouse Gas and Energy Management	
	305-5 Reduction of GHG emissions	3.2.5 Greenhouse Gas and Energy Management	
	305-6 Emissions of ozone-depleting substances (ODS)	3.4 Air pollution control	
Material Topic: Water Resource Management			
Management Policy	3-3 Management of material topics	1.4.3 Impact Identification and Value Chain 3.Environment Friendly	
303 Water and Effluents	303-1 Interactions with Water as a Shared Resource	3.3.1 Water Management 3.3.3 Wastewater Discharge	
	303-2 Management of Water Discharge-related Impacts	3.3.1 Water Management 3.3.3 Wastewater Discharge	
	303-3 Water Withdrawal	3.3.1 Water Management	
	303-4 Water Discharge	3.3.1 Water Management	
	303-5 Water Consumption	3.3.1 Water Management	

Topic	Comparison of GRI Indicators	Corresponding Section	Omission / Note
Material Topics: Waste management			
Management Policy	3-3 Management of material topics	1.4.3 Impact Identification and Value Chain 3. Environment Friendly	
306 Waste	306-1 Waste generation and significant waste-related impacts	3.5.1 Waste management	
	306-2 Management of significant wasterelated impacts	3.5.1 Waste management	
	306-3 Waste generated	3.5.1 Waste management	
	306-4 Waste diverted from disposal	3.5.1 Waste management	
	306-5 Waste directed to disposal	3.5.1 Waste management	
Material Topics: Chemical Safety			
Management Policy	3-3 Management of material topics	1.4.3 Impact Identification and Value Chain 3. Environment Friendly	
Material Topics: Employee Benefits and salary			
Management Policy	3-3 Management of material topics	1.4.3 Impact Identification and Value Chain 4.Employee Care	
401 Employment	401-1 New employee hires and employee turnover	4.1.1 Diverse Employee Structure 4.2.2 Employee Performance Evaluation and Job Security	
	401-2 Benefits provided to full-time employees that are not provided to temporary or parttime employees	4.2.1 Salary and Benefit	
	401-3 Parental leave	4.2.1 Salary and Benefit	
405 Diversity and Equal Opportunity for Employees	405-1 Diversity of governance bodies and employees	2.1.1 Functions of Board of Directors 4.1.1 Diverse Employee Structure	
	405-2 Ratio of basic salary and remuneration of women to men	4.2.1Salary and Benefit	

Topic	Comparison of GRI Indicators	Corresponding Section	Omission / Note
Material Topics: Occupational Health and Safety			
Management Policy	3-3 Management of material topics	1.4.3 Impact Identification and Value Chain 4. Employee Care	
403 Occupational Health and Safety	403-1 Occupational health and safety management system	4.5.1 Occupational Health and Safety	
	403-2 Hazard identification, risk assessment, and incident investigation	4.5.1 Occupational Health and Safety	
	403-3 Occupational health services	4.5.1 Occupational Health and Safety	
	403-4 Worker participation, consultation, and communication on occupational health and safety	4.5.1 Occupational Health and Safety	
	403-5 Worker training on occupational health and safety	4.5.2 Factory public safety	
	403-6 Promotion of worker health	4.5.1 Occupational Health and Safety	
	403-7 Prevention and mitigation of occupational health and safety impacts directly linked by business relationships	2.5.2 Supplier and Contractor Evaluation and Classification 4.5.2 Public Safety at the Facility	
	403-8 Workers covered by an occupational health and safety management system	4.5.1 Occupational Health and Safety	
	403-9 Work-related injuries	4.5.1 Occupational Health and Safety	
	403-10 occupational disease	4.5.1 Occupational Health and Safety	
Material Topic: Customer Relationship Management			
Management Policy	3-3 Management of material topics	1.4.3 Impact Identification and Value Chain 2. Governance	

Attachment 2: Sustainability Accounting Standards Board(SASB) Comparison Table

Disclosure Topic:Product Security				
Indicator Codes	Disclosure Status	Disclosure Mapping		Chapter Mapping
		2022	2023	2024	
TC-HW-230a.1	How to Identify and Address Data Security Risks in Products	NYPCB's products are not final goods, and they are designed and manufactured according to customer product design specifications. Therefore, there are no instances of product data security risks.			2.2.2 Information security

Disclosure Topic:Employee Engagement, Diversity & Inclusion														
Indicator Codes	Disclosure Status		Disclosure Mapping											Chapter Mapping
			2022				2023				2024			
			Domestic		Foreign		Domestic		Foreign		Domestic		Foreign	
			Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	
TC-HW-330a.1	Percentage of Gender and Ethnic Diversity Representation among (1) Management, (2) Technical Staff, and (3) All Other Employees (Unit: %)	(1)Management	4.1	0.5	0.0	0.0	4.3	0.6	0.0	0.0	4.6	0.6	0	0	4.1 Employee Development
		(2)Technical Staff	11.7	2.4	0.0	0.0	10.6	2.6	0.0	0.0	11.3	2.9	0	0	
		(3)All Other Employees	42.4	21.4	8.4	9.1	44.8	21.6	7.0	8.5	45.6	22.3	5.6	7.1	

Disclosure Topic:Product Design & Lifecycle Management						
Indicator Codes	Disclosure Status		Disclosure Mapping			Chapter Mapping
			2022	2023	2024	
TC-HW-410a.1	Percentage of Revenue from Products Containing Materials Eligible for Reporting under IEC 62474 (Unit: %)	ABFS	0	0	0	-
		PPS	0	0	0	
		PCB	0	0	0	
TC-HW-410a.2	Percentage of Revenue from Products Compliant with EPEAT or Equivalent Requirements (Unit: %)		N/A	N/A	N/A	
TC-HW-410a.3	Percentage of Revenue from Products with Energy Efficiency Certification (Unit: %)		N/A	N/A	N/A	
TC-HW-410a.4	Total Weight of Scrap Products and Recycled Electronic Waste (Unit: Tonne)		NYPCB is not a final product manufacturer and does not engage in product recycling operations. Therefore, product recycling-related information is not disclosed.			
	Percentage of Recycled and Reused Materials (Unit: %)					

Disclosure Topic:Supply Chain Management						
Indicator Codes	Disclosure Status		Disclosure Mapping			Chapter Mapping
			2022	2023	2024	
TC-HW-430a.1	Percentage of First-Tier Suppliers (1) Accepting Validated Audit Processes (VAP) under RBA Verification or Equivalent Audit Process, as a proportion of (a) All Suppliers and (b) High-Risk Suppliers (Unit: %)	(a) Percentage of All Suppliers (Unit: %)	100	100	100	2.5 Supplier and Contractor Management
		(b) Percentage of High-Risk Suppliers (Unit: %)	NO	NO	NO	
TC-HW-430a.2	Percentage of First-Tier Suppliers (1) Not Passing Validated Audit Processes (VAP) under RBA Verification or Equivalent Audit Process, and Improvement Rates for (a) Major Non-Conformances and (b) Other Non-Conformances	Percentage of Suppliers Not Passing Audits (Unit: %)	0%	0%	0%	
		Improvement Rate for Major Non-Conformances (Unit: %)	NA	NA	NA	
		Improvement Rate for Other Non-Conformances (Unit: %)	100	100	100	

Disclosure Topic:Materials Sourcing					
Indicator Codes	Disclosure Status	Disclosure Mapping			Chapter Mapping
		2022	2023	2024	
TC-HW-440a.1	Explanation of Risk Management Methods for Key Raw Materials:	Key suppliers that hold a monopoly or oligopoly position must establish and annually update their Business Continuity Plans (BCPs). The company adequately manages emergency response plans and requires suppliers to conduct annual self-risk assessments.			2.5 Supplier and Contractor Management

Operational Indicators : Number of units produced by product category					
Indicator Codes	Disclosure Status	Disclosure Mapping			Chapter Mapping
		2022	2023	2024	
TC-HW-000.A	Quantity of Produced Goods, by Product Category (Unit: Thousand Square Feet)	14,478	10,546	11,571	-

Operational Indicators : Area of manufacturing facilities					
Indicator Codes	Disclosure Status	Disclosure Mapping			Chapter Mapping
		2022	2023	2024	
TC-HW-000.B	Factory Area (Unit: Square Meters)	Business secrets, currently undisclosed.			-

Operational Indicators : Percentage of production from owned facilities					
Indicator Codes	Disclosure Status	Disclosure Mapping			Chapter Mapping
		2022	2023	2024	
TC-HW-000.C	Percentage of Production from Owned Facilities (Unit: %)	Business secrets, currently undisclosed.			-

Attachment 3: Comparison Table of Procedures for Compiling and Submitting Corporate Sustainability Reports by Listed Companies

Sustainability Reporting Indicators- Electronic Parts and Components Manufacturing

No.	Indicator	Category of Indicator	Annual Disclosure Status	Unit	Note
1	Total Energy Consumption	Quantification	2,089,047.31	Gigajoules (GJ)	
	Percentage of Purchased Electricity	Quantification	79	Percentage (%)	
	Rate of Renewable Energy Usage	Quantification	0.1	Percentage (%)	
2	Total Water Withdrawal	Quantification	3,625	Thousand Cubic Meters (m^3)	
	Total Water Consumption	Quantification	928	Thousand Cubic Meters (m^3)	
3	Weight of Hazardous Waste Generated	Quantification	11,801	Metric Tons (t)	
	Percentage of Hazardous Waste Recycled	Quantification	92.8	Ratio (%)	
4	Number of Occupational Accident Categories	Quantification	3;3	Quantity	2 cases of falls, 1 case of sprain
	Occupational Accident Rate	Quantification	0.05	Ratio (%)	
5	Weight of Scrap Products in Product Lifecycle Management (Note 1)	Quantification	-	Metric Tons (t)	As NYPCB is not an end-product manufacturer, it is not involved in any product recycling activities.
	Percentage of Recycled Scrap Products	Quantification	-	Percentage (%)	
	Weight of Electronic Waste in Product Lifecycle Management	Quantification	-	Metric Tons (t)	
	Percentage of Recycled Electronic Waste	Quantification	-	Percentage (%)	
6	Description of Risk Management Related to Key Materials Usage	Qualitative	For key suppliers identified as sole or exclusive sources, the Company mandates the establishment and annual update of a Business Continuity Plan (BCP). In addition, the Company implements appropriate controls over emergency response planning and requires suppliers to perform annual self-assessments of potential risks.	-	
7	Total Monetary Losses Incurred due to Legal Litigation Related to Antitrust Laws	Quantification	No	New Taiwan Dollar (NTD)	
8	Primary Product Output by Product Category	Quantification	11,571	Thousand Square Feet	

Note 1: This includes the sale of scrap materials or other recycling processes, with relevant explanations provided.

Climate-related information of listed companies

The relevant information is summarized from the Annual Report and the TCFD Report. For details, please refer to the '2024 NYPCB TCFD Report'.

<table>
<tr><th colspan="2">Climate Change Risks and Opportunities for the Company and Corresponding Response Measures</th><th>Implementation Status</th><th>Section Mapping</th></tr>
<tr><td>1</td><td>Describe the board' s and management' s oversight and governance of climate-related risks and opportunities</td><td>The Board of Directors serves as the highest decision-making and oversight body for climate change-related matters at the Company. The Chairman of the Board acts as the highest-ranking executive responsible for supervising issues and actions related to climate change.
To further strengthen the Board' s oversight responsibilities on climate change and other sustainability-related matters, the Company established the Sustainability Development Committee under the Board in May 2022. This committee is responsible for reviewing sustainability policies, strategies, and management guidelines; supervising the implementation of sustainability initiatives; and reporting to the Board of Directors. The Board oversees the achievement of the Company's sustainability goals.
At the management level, the Company has established an ESG Steering Organization, with the President serving as the Chief Coordinator and the Vice President as the Management Representative. This organization is responsible for formulating the Company' s sustainability strategies and monitoring performance. Supervising officers are appointed based on key focus areas to coordinate various sustainability efforts across the Company. The organization reports ESG-related matters to the Board of Directors and serves as a key reference for formulating the Company's sustainability policies.
(For more details, please refer to Chapter 3 – Governance of the Company' s 2024 TCFD Report.)</td><td>3.2.1
Climate Change Management Framework</td></tr>
<tr><td>2</td><td>Describe how the identified climate-related risks and opportunities impact the Company' s business, strategy, and financial performance (in the short, medium, and long term).</td><td>Climate-related risks and opportunities identified by the Company and their impacts:
<table>
<tr><th>Climate Risks and Opportunities</th><th>Impact</th></tr>
<tr><td>Transition Risk - Carbon Taxation</td><td>The "Climate Change Response Act" imposes a carbon tax on major manufacturing industries emitting over 25,000 metric tons of CO_2 equivalent (CO_2e) of greenhouse gases. This will lead to increased costs. If the carbon costs cannot be passed on to customers, product prices may lose their competitiveness, resulting in financial impact.</td></tr>
<tr><td>Transition Risk - Energy Costs</td><td>In response to climate change, coal-producing countries may reduce or even stop coal mining, leading to higher coal prices. This could result in an increase in energy costs for the Company.</td></tr>
<tr><td>Transition Risk - Customer Demand for Green Power</td><td>One of our major consumer electronics customers has requested the complete adoption of green energy by 2025. Failure to meet this requirement may result in a loss of related business revenue.</td></tr>
<tr><td>Physical Risk - Flooding and Water Damage</td><td>Extreme weather conditions caused by climate change, such as strong winds or typhoons, may force the Company to halt production lines to prevent process damage. If heavy rainfall or flooding occurs, the plant may experience operational shutdowns due to water damage, which could affect operations and result in revenue loss.</td></tr>
<tr><td>Physical Risk - Water Scarcity</td><td>Based on climate projections from 1986 to 2005, it is estimated that the plant may experience water scarcity or drought conditions for two months annually between 2016 and 2035. Water shortages caused by climate anomalies may lead to revenue loss.</td></tr>
<tr><td>Transition Opportunity - Electric Vehicle Market</td><td>In response to net-zero emissions targets, several countries have established a timeline from 2020 to 2040 to ban the sale of fuel-powered vehicles. After 20 years, consumers in these countries will only be able to purchase electric vehicles or hydrogen fuel cell vehicles, driving rapid growth in the electric vehicle industry. The Company is actively investing in the development of products related to the electric vehicle market, such as circuit boards for electric vehicle peripherals, which is expected to increase the Company's related business revenue.</td></tr>
</table></td><td>3.2.2
Climate Change Management Strategy</td></tr>
</table>

	Climate Change Risks and Opportunities for the Company and Corresponding Response Measures	Implementation Status	Section Mapping
3	Impact of Extreme Weather Events and Transition Actions on Financial Performance	(1) Extreme Weather Events: In the event of extreme weather conditions, such as heavy rainfall causing flooding or droughts, production at the Company may be halted. Based on estimated 2024 revenue, such events could result in a daily loss of approximately 80 million NTD in operating income. A. Drought Response Strategy: The Company has signed a contract with the Taoyuan North District Water Resource Recycling Center for the use of recycled water. By 2025, it is anticipated that 11,000 tons of recycled water for domestic use will be available daily for the plant. B. Flooding Response Strategy: The Company regularly inspects its drainage systems and emergency response measures to ensure that the impact of heavy rainfall on production is minimized. (2) Transition Actions: Electricity accounts for over 90% of the Company' s emissions. In accordance with the SBTi carbon reduction pathway, the Company plans to adopt renewable energy and aims to introduce green electricity by 2025, which will increase operating costs. Therefore, the Company is actively implementing energy-saving and carbon reduction initiatives, such as the continued installation of solar power systems and the promotion of circular economy initiatives. These actions aim to transition to low-carbon energy and reduce fuel usage to lower costs. In 2023, the Company completed the first phase of the solar power system at the Shulin plant, which is now supplying power to the grid. The second phase, with an installed capacity of approximately 993 kW, is expected to be completed by 2026. (For further details, please refer to Chapter 3 – Climate Change Risk and Opportunity Management of the Company' s 2024 TCFD Report.)	3.2.3 Climate Change Risk and Opportunity Management
4	Integration of Climate Risk Identification, Assessment, and Management into the Overall Risk Management System:	The Company's process for identifying, assessing, and managing climate-related risks includes the following steps: Background Data Collection → Risk and Operational Assessment Scope → Risk and Operational Impact Analysis → Control Measures and Goal Setting. Led by the Occupational Health and Safety Team, relevant departments from the General Manager's Office convene biannually to collect information on risks and opportunities. Both transition risks (policy and legal, market, technology, reputation) and physical risks (chronic and acute) are considered. For each potential event, the risks are assessed in terms of financial impact, time frame (short, medium, long), affected stakeholders in the value chain, and likelihood. When identifying opportunities, factors such as resource efficiency, energy, products and services, market, and adaptability are also considered. Each potential opportunity is assessed for its financial impact, time frame (short, medium, long), affected stakeholders in the value chain, and likelihood. The Company uses a matrix to determine significant risks and opportunities based on the financial impact and likelihood of the event. The assessment is categorized into five levels, with scores ranging from 5 to 1. Depending on the nature of the risk, the Company collaborates with relevant departments to assess the likelihood and impact, and promptly reports to management to adjust the Company' s operational strategy as necessary. (For further details, please refer to Chapter 3 – Climate Change Risk and Opportunity Management of the Company' s 2024 TCFD Report.)	3.2.3 Climate Change Risk and Opportunity Management

<table>
<tr><th colspan="2">Climate Change Risks and Opportunities for the Company and Corresponding Response Measures</th><th>Implementation Status</th><th>Section Mapping</th></tr>
<tr><td>5</td><td>Resilience Assessment to Climate Change Risks Using Scenario Analysis:</td><td>The Company follows the TCFD recommended guidelines and uses scenario analysis to assess resilience to climate change risks. This assessment considers both transition and physical risks, analyzing the worst-case scenario for each type of risk and incorporating the results into the Company’s strategic resilience evaluation.
1. Transition Risk: The Company uses the SBTi official evaluation model for transition risks. For the Jinxing plant, 2020 is set as the baseline year, with the emission reduction target for Scope 1 and Scope 2 emissions in 2030 set at 25%. The Company further analyzes potential transition strategies, operating costs, capital expenditures, and other factors required to achieve this emission reduction target. Since electricity accounts for approximately 90% of the Company’s emissions, green electricity purchases are evaluated as a scenario to achieve the emission reduction target. Assuming the cost of green electricity is 2.5 to 3.0 NTD per kWh higher than the current electricity cost, and using the electricity consumption in 2024 as the basis for the evaluation, operating costs increase by approximately NT$110 million to NT$130 million NTD per year.
2. Physical Risk: For physical risks, the Company uses the Shared Socioeconomic Pathways (SSP) defined in the IPCC’s Sixth Assessment Report (AR6) to project future emission scenarios, considering low emission (SSP1-2.6), medium emission (SSP2-4.5), high emission (SSP3-7.0), and very high emission (SSP5-8.5) pathways. The "Taiwan Climate Change Projection and Adaptation Knowledge Platform" (TCCIP) provides climate change key indicator scenarios. The analysis focuses on the temperature rise relative to 1850-1900 and the potential impacts of climate change in the medium term (2041-2060). The analysis is further combined with disaster risk data from the "National Center for Disaster Reduction" (NCDR) to assess the acute flooding, high-temperature, drought, and landslide risks for the different plants under various scenarios. Assuming extreme weather events such as heavy rainfall or drought lead to the suspension of production, it is estimated that such events could result in a daily revenue loss of approximately 8 million NTD, based on 2024 revenue. However, after reviewing the drainage capacity and emergency response protocols (typhoon response procedures and emergency response procedures) for both the Jinxing and Shulin plants, the Company confirms that these plants have sufficient capacity to handle scenarios involving heavy rainfall.
(For further details, please refer to Chapter 3 – Climate Change Risk and Opportunity Management of the Company’s 2024 TCFD Report.)</td><td>3.2.3
Climate Change Risk and Opportunity Management</td></tr>
<tr><td>6</td><td>If the Company has developed transition plans to manage climate-related risks, please describe the content of those plans, as well as the metrics and targets used to identify and manage physical and transition risks.</td><td>The Company promotes the management of climate-related risks and opportunities through five key strategies, which include: (1) Developing low-carbon products, (2) Advancing green technology in production, (3) Adapting to climate change risks, (4) Collaborating with sustainable partners, and (5) Promoting climate advocacy and awareness. For each strategic focus, the Company has established corresponding metrics and targets.
(For more details, please refer to Chapter 3 – Climate Change Risk and Opportunity Management of the Company’s 2024 TCFD Report and Chapter 3 – Environmentally Friendly Practices of the 2024 Sustainability Report.)
<table>
<tr><th>Strategy</th><th>Metric</th><th>Target</th></tr>
<tr><td>Advancing Green Technology in Production</td><td>Scope 1 and Scope 2 GHG Emissions</td><td>25% reduction by 2030 (base year: 2020)</td></tr>
<tr><td></td><td>Installed Capacity of On-site Renewable Energy (kW)</td><td>Phase II solar PV installation of 993 kW by 2026</td></tr>
<tr><td rowspan="7">Adapting to Climate Change Risks & Climate Advocacy</td><td>Water Consumption per Unit Output (Million Liters / NT$1,000)</td><td>Reduce by 2% annually based on the previous year’s actual usage</td></tr>
<tr><td>Reclaimed Wastewater Volume (Million Liters / Day)</td><td>Increase by 1% annually based on the previous year’s actual usage</td></tr>
<tr><td>Non-recycled Waste per Unit Output (Metric Tons / NT$1,000)</td><td>Reduce by 1% annually based on the previous year’s actual volume</td></tr>
<tr><td>Proportion of Reclaimed Water Used</td><td>Increase the usage of externally sourced reclaimed water</td></tr>
<tr><td>Scope 3 GHG Emissions</td><td>12.3% reduction by 2030 (base year: 2020)</td></tr>
<tr><td>CDP Climate Change Rating</td><td>Achieve Leadership Level or above</td></tr>
<tr><td>CDP Water Security Rating</td><td>Achieve Leadership Level or above</td></tr>
</table>
To ensure stakeholders gain a comprehensive understanding of the Company’s efforts and achievements in energy conservation, carbon reduction, and the circular economy—as well as its capabilities in managing the physical and transition risks and opportunities associated with climate change—the Company prepares its climate-related disclosures in accordance with the TCFD framework. The report is updated annually and published on the Company’s official website. The 2023 edition was released in June 2024. For detailed information on the indicators and targets related to the management of physical and transition risks, please refer to the Company’s TCFD Report.</td><td>3.2.4
Climate Change Indicators and Targets</td></tr>
</table>

<table>
<tr><th colspan="2">Climate Change Risks and Opportunities for the Company and Corresponding Response Measures</th><th>Implementation Status</th><th>Section Mapping</th></tr>
<tr><td>7</td><td>Basis for Internal Carbon Pricing (ICP)</td><td>To enhance awareness of greenhouse gas emissions at each facility and to strengthen the implementation of carbon reduction efforts, the Company has adopted an Internal Carbon Pricing (ICP) mechanism since 2022. Utilizing a self-developed greenhouse gas accounting system, the Company incorporates monthly carbon emission costs—including excess emission penalties—into operational performance assessments. This approach is intended to drive deeper emissions reduction efforts across all sites.
In accordance with the Ministry of Environment's 'Carbon Fee Charging Regulations,' the company has adopted an internal carbon pricing of NT$100 to NT$300 per metric ton and has estimated its carbon fee for the year 2025. The company will continue to implement energy-saving and carbon reduction measures in response.</td><td>3.2.3
Climate Change Risk and Opportunity Management</td></tr>
<tr><td>8</td><td>If climate-related targets have been set, the Company should disclose the scope of activities covered, the greenhouse gas (GHG) emission scopes (Scope 1, 2, or 3), the timeline for achieving these targets, and the annual progress toward achieving them.
If carbon offsets or Renewable Energy Certificates (RECs) are used to meet these targets, the Company should disclose the source and volume of carbon reductions being offset, as well as the number of RECs used.</td><td>The Company has set an absolute greenhouse gas (GHG) reduction target for Scope 1 and Scope 2 emissions, using 2020 as the base year and 2021 as the starting year, with a target year of 2030. The goal is to achieve a 25% reduction over a 10-year period, covering the Company’ s Taiwan manufacturing sites.
<table>
<tr><th>Year</th><th>2020 年 (Base Year)</th><th>2024</th></tr>
<tr><td>GHG Emissions (Ton-CO_2e)</td><td>419,319</td><td>431,676</td></tr>
<tr><td>Change Compared to Base Year (%)</td><td>-</td><td>3%</td></tr>
</table>
Note:
The increase in emissions compared to the base year is primarily due to the expansion of the Shulin Plant, which was completed and officially commenced operations in 2022. Its emissions have been included in the Company’ s GHG inventory since then.</td><td>3.2.4
Climate Change Indicators and Targets</td></tr>
<tr><td>9</td><td>For details on GHG inventory and assurance</td><td>Please refer to Tables 1-1-1 and 1-1-2.</td><td>-</td></tr>
<tr><td>10</td><td>For the GHG reduction targets, strategies, and concrete action plans</td><td>Please refer to Table 1-2.</td><td>-</td></tr>
</table>

1-1 Recent Two-Year GHG Inventory and Assurance Status

1-1-1 Greenhouse Gas Inventory Information

The Company conducts annual GHG inventories in accordance with ISO 14064-1 standards, as issued by the International Organization for Standardization (ISO). The inventory covers the Company's operational entities and uses the operational control approach to consolidate emissions data. The GHG emission data for the past two years are summarized as follows:

	Year	Total Emissions (Ton-CO_2e)		Emission Intensity (Ton-CO_2e / NT$ Million)	Data Coverage
NYPCB	2023	Scope 1	3,227.8	10.48	Covers all Taiwan sites; the head office is excluded as it accounts for less than 5% of total emissions
		Scope 2	439,642.31		
		Total	442,870.11		
	2024	Scope 1	5,992	13.37	
		Scope 2	425,684.19		
		Total	431,676.14		

Note 1: The 2024 GHG verification statement is expected to be obtained in August 2025. The verification scope covers all manufacturing sites in Taiwan, excluding the head office.

Note 2: The Company uses the ISO 14064-1:2018 standard for GHG inventory. Emissions are calculated using GWP values as announced in the IPCC Fifth Assessment Report (AR5).

1-1-2 Greenhouse Gas Assurance Information

The GHG inventory for the Company and certain subsidiaries in the consolidated financial report has been assured for the past two years as follows:

	Year	Assurance Provider	Assurance Standard	Assurance Details
NYPCB	2023	SGS Taiwan Testing & Inspection Co., Ltd., BSI Group Singapore (Taiwan Branch)	ISO 14064-1:2018, ISO 14064-3:2019 (Reasonable Assurance)	The total GHG emissions (Scope 1 + 2) disclosed by the Company were 442,870.11 tons of CO_2e, with no qualifications.
	2024			• The Jingshin Plant has scheduled the three-phase verification with BSI on March 17, March 28, and April 11. • The Shulin Plant has scheduled the three-phase verification with SGS on June 20, July 4, and July 11.

1-2 Greenhouse Gas Reduction Targets, Strategies, and Action Plans

	Greenhouse Gas Reduction Targets	Strategy	Action Plans
NYPCB	• Net Zero Carbon Emissions by 2050 • Set a short-term target to reduce greenhouse gas emissions by 25% by 2030, based on 2020 as the baseline.	1. Continuously promote the ISO 14001:2015 Environmental Management System and ISO 14064-1:2018 GHG inventory, and carry out various energy and resource-saving activities. 2. Align with government policies on green procurement by selecting products with environmental and energy-saving labels as procurement targets. Report procurement results to the government annually.	1. Collect and evaluate climate change-related information, develop climate change response plans, regularly review and improve, and implement energy-saving and emission reduction activities. 2. Promote process optimization, improve the efficiency of public equipment, replace motors with energy-efficient IE3 motors, and optimize drying equipment to save energy. 3. Plan for green electricity usage.

Attachment 4:Assurance Statement

bsi.

bsi
By Royal Charter

INDEPENDENT ASSURANCE OPINION STATEMENT

Nan Ya Printed Circuit Board Corporation 2024 Sustainability Report

The British Standards Institution is independent to Nan Ya Printed Circuit Board Corporation (hereafter referred to as Nan Ya PCB in this statement) and has no financial interest in the operation of Nan Ya PCB other than for the assessment and verification of the sustainability statements contained in this report.

This independent assurance opinion statement has been prepared for the stakeholders of Nan Ya PCB only for the purpose of assuring its statements relating to its sustainability report, more particularly described in the Scope below. It was not prepared for any other purpose. The British Standards Institution will not, in providing this independent assurance opinion statement, accept or assume responsibility (legal or otherwise) or accept liability for or in connection with any other purpose for which it may be used, or to any person by whom the independent assurance opinion statement may be read.

This independent assurance opinion statement is prepared on the basis of review by the British Standards Institution of information presented to it by Nan Ya PCB. The review does not extend beyond such information and is solely based on it. In performing such review, the British Standards Institution has assumed that all such information is complete and accurate.

Any queries that may arise by virtue of this independent assurance opinion statement or matters relating to it should be addressed to Nan Ya PCB only.

Scope

The scope of engagement agreed upon with Nan Ya PCB includes the followings:

1. The assurance scope is consistent with the description of Nan Ya Printed Circuit Board Corporation 2024 Sustainability Report.
2. The evaluation of the nature and extent of the Nan Ya PCB's adherence to AA1000 AccountAbility Principles (2018) in this report as conducted in accordance with type 1 of AA1000AS v3 sustainability assurance engagement and therefore, the information/data disclosed in the report is not verified through the verification process.

This statement was prepared in English and translated into Chinese for reference only.

Opinion Statement

We conclude that the Nan Ya Printed Circuit Board Corporation 2024 Sustainability Report provides a fair view of the Nan Ya PCB sustainability programmes and performances during 2024. The sustainability report subject to assurance is free from material misstatement based upon testing within the limitations of the scope of the assurance, the information and data provided by the Nan Ya PCB and the sample taken. We believe that the performance information of Environment, Social and Governance (ESG) are fairly represented. The sustainability performance information disclosed in the report demonstrate Nan Ya PCB's efforts recognized by its stakeholders.

Our work was carried out by a team of sustainability report assurors in accordance with the AA1000AS v3. We planned and performed this part of our work to obtain the necessary information and explanations we considered to provide sufficient evidence that Nan Ya PCB's description of their approach to AA1000AS v3 and their self-declaration in accordance with GRI Standards were fairly stated.

Methodology

Our work was designed to gather evidence on which to base our conclusion. We undertook the following activities:

- a review of issues raised by external parties that could be relevant to Nan Ya PCB's policies to provide a check on the appropriateness of statements made in the report.
- discussion with managers on approach to stakeholder engagement. However, we had no direct contact with external stakeholders.
- 12 interviews with staffs involved in sustainability management, report preparation and provision of report information were carried out.
- review of key organizational developments.
- review of the findings of internal audits.
- review of supporting evidence for claims made in the reports.
- an assessment of the organization's reporting and management processes concerning this reporting against the principles of Inclusivity, Materiality, Responsiveness, and Impact as described in the AA1000AP (2018).

Conclusions

A detailed review against the Inclusivity, Materiality, Responsiveness, and Impact of AA1000AP (2018) and GRI Standards is set out below:

Inclusivity

This report has reflected a fact that Nan Ya PCB has continually sought the engagement of its stakeholders and established material sustainability topics, as the participation of stakeholders has been conducted in developing and achieving an accountable and strategic response to sustainability. There are fair reporting and disclosures for the information of Environment, Social and Governance (ESG) in this report, so that appropriate planning and target-setting can be supported. In our professional opinion the report covers the Nan Ya PCB's inclusivity issues.

Materiality

Nan Ya PCB publishes material topics that will substantively influence and impact the assessments, decisions, actions and performance of Nan Ya PCB and its stakeholders. The sustainability information disclosed enables its stakeholders to make informed judgements about the Nan Ya PCB's management and performance. In our professional opinion the report covers the Nan Ya PCB's material issues.

Responsiveness

Nan Ya PCB has implemented the practice to respond to the expectations and perceptions of its stakeholders. An Ethical Policy for Nan Ya PCB is developed and continually provides the opportunity to further enhance Nan Ya PCB's responsiveness to stakeholder concerns. Topics that stakeholder concern about have been responded timely. In our professional opinion the report covers the Nan Ya PCB's responsiveness issues.

Impact

Nan Ya PCB has identified and fairly represented impacts that were measured and disclosed in probably balanced and effective way. Nan Ya PCB has established processes to monitor, measure, evaluate, and manage impacts that lead to more effective decision-making and results-based management within the organization. In our professional opinion the report covers the Nan Ya PCB's impact issues.

GRI Sustainability Reporting Standards (GRI Standards)

Nan Ya PCB provided us with their self-declaration of in accordance with GRI Standards 2021 (For each material topic covered in the applicable GRI Sector Standard and relevant GRI Topic Standard, comply with all reporting requirements for disclosures). Based on our review, we confirm that sustainable development disclosures with reference to GRI Standards' disclosures are reported, partially reported, or omitted. In our professional opinion the self-declaration covers the Nan Ya PCB's sustainability topics.

Assurance level

The moderate level assurance provided is in accordance with AA1000AS v3 in our review, as defined by the scope and methodology described in this statement.

Responsibility

The sustainability report is the responsibility of the Nan Ya PCB's chairman as declared in his responsibility letter. Our responsibility is to provide an independent assurance opinion statement to stakeholders giving our professional opinion based on the scope and methodology described.

Competency and Independence

The assurance team was composed of auditors experienced in relevant sectors, and trained in a range of sustainability, environmental and social standards including AA1000AS, ISO 14001, ISO 45001, ISO 14064, and ISO 9001. BSI is a leading global standards and assessment body founded in 1901. The assurance is carried out in line with the BSI Fair Trading Code of Practice.

For and on behalf of BSI:

Peter Pu, Managing Director BSI Taiwan

AA1000
Licensed Report
000-4/V3-7L3Z7

...making excellence a habit.™

Statement No: SRA-TW-802578

2025-04-22

Taiwan Headquarters: 2nd Floor, No. 37, Ji-Hu Rd., Ni-Hu Dist., Taipei 114, Taiwan, R.O.C.