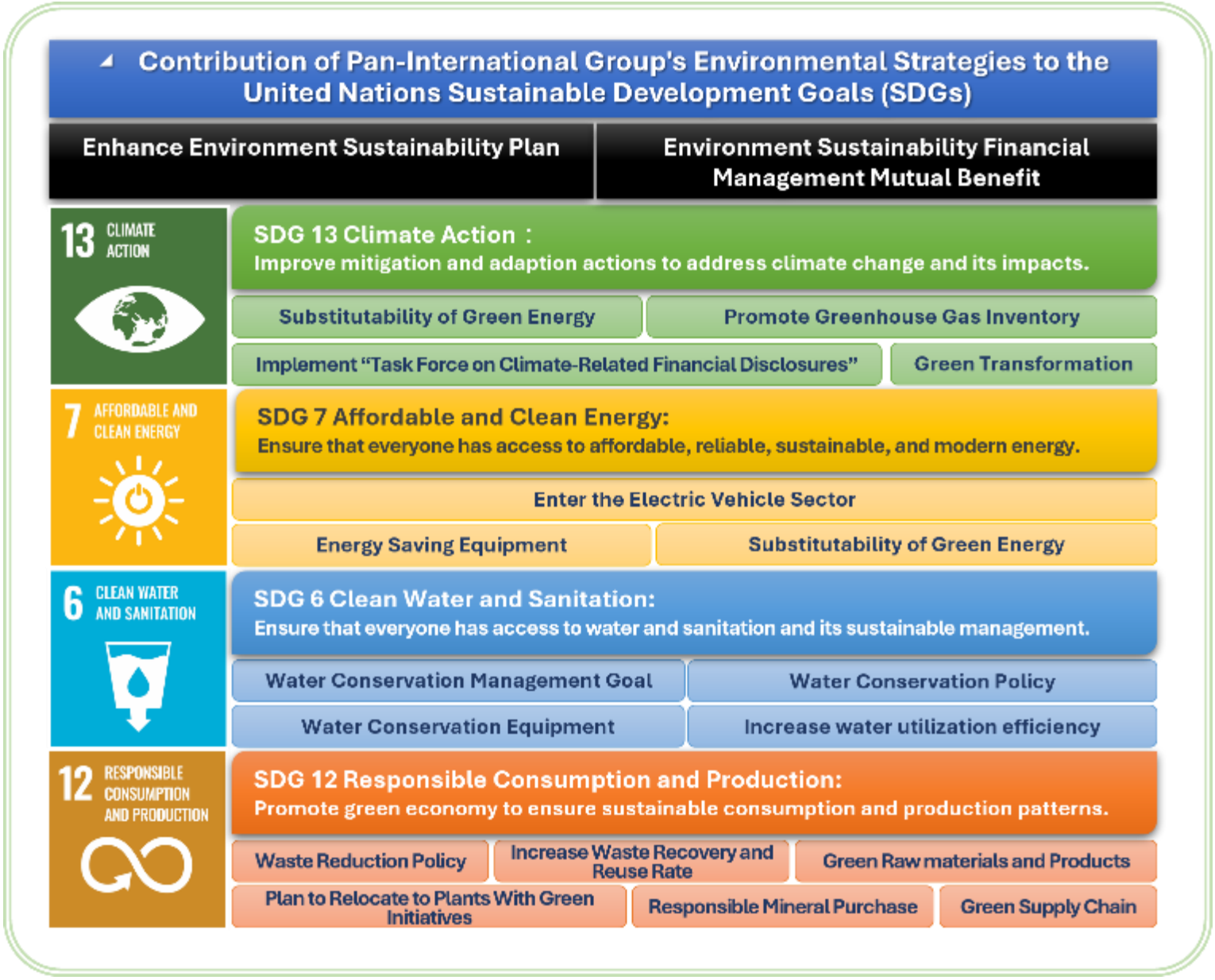
5. Environmentally Friendly



5.1 Energy Conservation and Carbon Reductio

Material Topic Management Approach: Energy, Greenhouse Gases

(The management actions for these two issues are highly related, so the management measures for both are explained together)

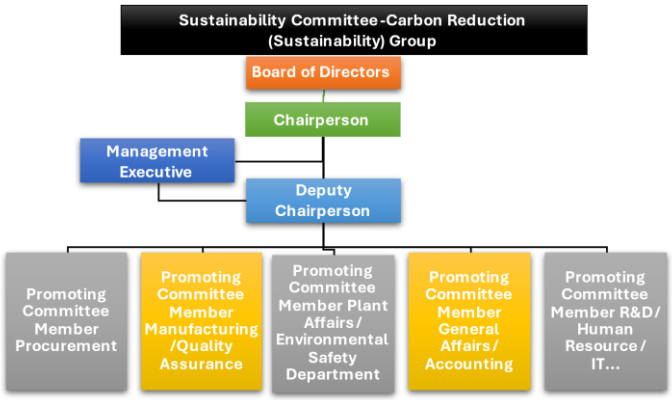
Corresponding GRI Indicators:

Energy—GRI 3-3, GRI 302-1, GRI 302-3, GRI 302-4

Greenhouse Gas—GRI 3-3, GRI 305-1, GRI 305-2, GRI 305-4, GRI 305-5

		Energy			Greenhouse Gas	
Impact Description		1. Energy consumption leads to rising costs, which increases operating expenses 2. Failure to fulfill corporate social responsibility 3. Deduction on company evaluation score			1. The gradual increase in greenhouse gas emission pricing 2. Extreme climate events 3. Negative stakeholder feedback 4. Violation of local and international regulations 5. Damage to corporate image	
Location		Pan-International, Taipei (Parent Company)	Dongguan Pan-International	New Ocean Precision Component, Jiangxi	Honghuasheng, Yantai	CJ Electric Systems, Wuhu
Policies or Commitments Established or Followed	Internal Regulations	V	V	V	V	V
	Government Regulations	V	V	V	V	V
Responsible Units		Sustainability Committee / Chairman / Management Committee	Sustainability Committee / Deputy Chairperson	Sustainability Committee / Deputy Chairperson	Sustainability Committee / Deputy Chairperson	Sustainability Committee / Deputy Chairperson

Management Actions



- Establish Sustainability Committee: Regularly discuss the implementation and planning of work related to climate change, energy issues, and greenhouse gas emission disclosure and reduction, then report the results to the Board of Directors annually/quarterly.
- Inventory and monitor greenhouse gas emissions
- Set carbon reduction goals and regularly review and improve

Organization	Plant	Department
Chairperson	Pan-International, Taipei	Stock Affairs Office
Management Executive		Environmental Safety Department
Deputy Chairperson	Dongguan Pan-International	HR Department-1
Deputy Chairperson		HR Department-2
Deputy Chairperson	CJ Electric Systems, Wuhu	Management Department
Deputy Chairperson		General Affairs Department
Deputy Chairperson	New Ocean Precision Component, Jiangxi	Management Department
Deputy Chairperson		Plant Affairs Section - Fengcheng
Deputy Chairperson	Honghuasheng, Yantai	Maintenance Section 2

Process for Monitoring the Effectiveness of Actions

- Sustainability Committee: For key subsidiaries (with production plants), the Group established a management organization chaired by the Chairman, who acts as the Chairperson. The Committee meets regularly (quarterly) to discuss the implementation and planning of work related to climate change, energy issues, and greenhouse gas emission disclosure and reduction, then report the results to and review with the Board of Directors annually/quarterly.
- The Board of Directors supervises.
- Through the Sustainability Committee to formulate establish and objectives on energy conservation and carbon reduction, as well as coordinating and integrating related promotion strategies and plans of each subsidiary. Regular meetings are held to continuously introduce various energy-saving plans suitable for different plants, confirm and review goal achievement rates, and challenge new energy-saving milestones.

Management Performance Indicators				
Indicators	2023 Achievement	Short-term Goal (2024)	Mid-term Goal (2022-2027)	Long-term Goal (2022-2050)
(Non-Renewable) Energy Intensity	**Short-term goal 100% achieved:** 100% **Decreased by 1.46% (under the same conditions as the** base year*** - Note 1)**	**Decrease by 1% annually**	Decrease by 5% in five years	Net zero emissions
Increase In Plant Green Energy Proportion	**Short-term goal 100% achieved:** 100% **From 0.06% to 0.68% Note [2]**	**Increase by 0.5% annually**	Increase by 2.5% in five years	Increase by 10% for key plants
Emission Intensity	**Short-term goal 100% achieved:** 100% **Decreased by 3.66% (under the same conditions* - Note [3])**	**Decrease by 1.5% annually**	Decrease by 7.5% in five years	Net zero emissions
Zero Violations	**Short-term goal 100% achieved:** 100% **100% achieved**	**Comply with international and local environmental regulations to achieve zero violations.**		

* The 2022 base year boundary includes locations: Pan-International, Taipei, and subsidiaries in mainland China: Dongguan Pan-International, New Ocean Precision Component, Jiangxi, Honghuasheng, Yantai, CJ Electric Systems, Wuhu
* This year's organizational boundary includes locations: Pan-International, Taipei, US subsidiary, and subsidiaries in mainland China: Dongguan Pan-International, New Ocean Precision Component, Jiangxi, Honghuasheng, Yantai, CJ Electric Systems, Wuhu
* Note [1]Same conditions as the base year: Since the US subsidiary was not included in 2022, the (non-renewable) energy intensity in 2023 decreased by ↓1.46% when excluding the US. Indicators achieved.
* Note [2] Although the construction of Honghuasheng Yantai's solar power was postponed due to the pandemic, Dongguan Pan-International increased its green energy output, enabling the goal to be achieved.
* Note [3] Same conditions: Since the US subsidiary was not included in 2022, 2023 decreased by ↓3.66% when excluding the US, achieving the indicator.

Pan-International Group's global plants are not major carbon emitters and are currently outside the scope of carbon tax or mandatory carbon trading regulations. Therefore, there have been no mandatory requirements in the past, only compliance with local regulations. Given the limited opportunities for carbon reduction in the industry, along with the current global climate issues and corporate responsibility, the Group remains committed to taking carbon reduction actions.

- Schedule for the Group's Greenhouse Gas Disclosure

  1. Implemented Task Force on Climate-Related Financial Disclosures starting in 2022.
  2. Starting in 2023, the parent company completed 2022 greenhouse gas inventory (Scope 1, 2) and conduct it annually thereafter.
  3. Starting in 2023, subsidiaries in mainland China completed the 2022 greenhouse gas inventory (Scope 1, 2) and conduct it annually thereafter.
  4. Honghuasheng, Yantai obtained the certification for ISO 14064-1:2018: Organizational Level Greenhouse Gas Emission Certification (completed).
  5. New Ocean Precision Component, Jiangxi aims to obtain the certification for ISO 14064-1:2018: Organizational Level Greenhouse Gas Emission Certification (in progress) in 2024.
  6. The parent company and its subsidiaries in mainland China plan to obtain the certification for ISO 14064-1:2018 Organizational Level Greenhouse Gas Emission Certification in 2025 (in planning).
  7. The parent company and its consolidated subsidiaries plan to complete the 2025 greenhouse gas inventory in 2026.
  8. The parent company plans to complete the 2026 greenhouse gas verification in 2027.
  9. The consolidated subsidiaries plan to complete the 2027 greenhouse gas verification in 2028.

- Strengthen Energy Disclosure:

  From 2023, key subsidiaries in mainland China (with production plants) are required to a comprehensive inventory of all energy structures for 2022 (including thermal energy, natural gas, and gasoline/diesel inventory) and to perform this inventory annually thereafter. (Completed)

5.1.1 Energy Management

Due to energy shortages, global warming, and increasingly severe climate change, energy management and transition have become crucial components of international energy policies. The selection and consumption of energy are closely linked to issues such as company costs, environment, and safety. Improving energy utilization efficiency and reducing energy consumption will help save costs and mitigate the impacts of climate change.

Energy Structure: Due to the nature of the industry, the energy structure used by the Group's subsidiaries in mainland China primarily consists of purchased electricity, which accounts for over 80-90% of total energy consumption.

Energy Management Method: Sustainability Committee: For key subsidiaries of the Group (with production plants), a management organization is established with the Chairman acting as the Chairperson. The Committee regularly (quarterly) discuss the implementation and planning of work related to climate change, energy issues, and greenhouse gas emission disclosure and reduction, then report the discussion results to the Board of Directors annually/quarterly.

Energy Management Strategy: The main objective is to reduce the consumption of non-renewable purchased electricity. Additionally, there has been a focus on increasing the establishment of solar (photovoltaic) power stations to boost the generation of green energy.

Energy Conservation and Carbon Reduction Implementation: Through the Sustainability Committee, we establish guidelines and goals for energy conservation and carbon reduction. We also coordinate and integrate the promotion strategies and plans for energy conservation and carbon reduction across each subsidiary. Regular meetings are held to continuously introduce various energy-saving plans, challenging new energy-saving milestones.

Energy Saving Planning:

1. In response to energy-saving planning, Pan-International, Taipei will relocate to a new plant with green building concepts in 2024.
2. For plants in mainland China, in addition to self-building solar power stations, China is actively promoting energy structure adjustments in response to global energy-saving and carbon reduction trends; large-scale applications of new energy sources such as wind power and solar power generation are being widely increased. The Group's plants utilize local electricity, contributing to carbon reduction through the use of green energy.
3. Subsidiaries in mainland China are successively building or evaluating solar power stations.
4. Evaluating the introduction of ISO 50001 for each plant.
5. Encouraging process improvement and equipment energy saving.

To effectively improve the Company's energy use efficiency, we have introduced the ISO 50001 Energy Management System standard for the higher energy-consuming plant - Honghuasheng, Yantai, and plan to encourage other plants to follow. In accordance with ISO 14064-1:2018 Greenhouse Gas Inventory Standards, we conduct an energy resource inventory by directly measuring various energy uses through on-site meters. We also estimate plant energy consumption using mass balance method and procurement quantity method. The Sustainability Committee - Energy Management Unit is responsible for integrating the energy use status from each operating location, identifying the main energy types of each site, and formulating energy-saving improvement plans and short, medium, and long-term goals. The Sustainability Committee supervises the implementation of energy policies annually and adjusts energy plans in a timely manner to ensure the achievement of energy-saving goals.

As of the end of 2023, Honghuasheng, Yantai passed ISO 50001 external verification. The Company also strengthens the promotion of company energy-saving policies, holds relevant promotion activities and education and training courses to enhance employees' energy-saving and carbon reduction concepts.

Location	Whether ISO 50001 Has Been Implemented	Energy Supervision Unit and its Responsibilities	Energy Data Collection Method
Pan-International, Taipei	None	Environmental Engineering Department	Direct measurement, financial data, evidence-based estimation
US Subsidiary	None	Pan-International, Taipei assists in management (office with less than 10 people)	Direct measurement, financial data
Dongguan Pan-International	Planning	Management Department	Meter monitoring, financial data, evidence-based estimation
New Ocean Precision Component, Jiangxi	None	Engineering Department	Model analysis, meter monitoring, financial data, evidence-based estimation
Honghuasheng, Yantai	2026/10/12	Plant Affairs Department	Direct measurement, meter monitoring, financial data, evidence-based estimation
CJ Electric Systems, Wuhu	None	Management Department	Meter monitoring, financial data, evidence-based estimation

Note: Dates listed in the table represent the expiration dates of the certificates

5.1.2 Energy Consumption

(GRI 302-1, 302-3)

In 2023, within the Group's boundary, the total energy consumption was 492,727.303 gigajoules (GJ), and the energy intensity was 22.333 (GJ/million revenue). The Company's energy consumption is primarily derived from non-renewable purchased electricity, which accounts for over 90% of total energy consumption. The remaining energy proportions comprise less than 4% for purchased thermal energy and less than 4% for fossil fuels. Therefore, in subsequent energy-saving planning, the main goals will be to reduce electricity usage and increase the utilization of renewable energy.

In 2023, the Group's non-renewable energy intensity was 22.18 (GJ/million revenue). **In 2023, the Group's non-renewable energy - total consumption decreased to 489,268.582 GJ, and non-renewable energy - intensity decreased by 1.46% compared to 2022** (excluding the US subsidiary in 2023 to maintain consistency with the 2022 calculation scope), **thus achieving the short-term goal**. (If including the US subsidiary, the total consumption of non-renewable energy decreased to 489,360.165 GJ, reflecting a 3.40% drop compared to 2022) We will continue to implement energy-saving measures to reduce energy consumption and introduce various energy-saving initiatives suitable for different plants. We will also confirm and review goal achievement rates, challenging ourselve to achieve new energy-saving milestones.

> **The Group's plants in mainland China offer free sites (rooftops) to solar energy operators, allowing them to provide purchased electricity to us at preferential prices. This not only realizes the goals of energy-saving and carbon reduction but also reduces costs and promotes economic circulation.**

The following charts illustrate that the Group's energy consumption continues to decrease at each plant, due to actively replacing energy-saving equipment and allocating energy consumption to maximize contribution. Therefore, the plants continue to decrease energy consumption and energy intensity. The Company continues to implement and reward electricity-saving programs, strengthening energy use efficiency internally, reducing unnecessary energy consumption, and allowing employees to implement energy-saving and carbon reduction in daily life. Various energy-saving policies are also encouraged in the plants. This approach not only achieves energy-saving and carbon reduction goals but also reduces costs, increases profits, and creates a mutually beneficial situation. Under the advocacy of energy-saving policies, the results have been very good.

Pan-International Group's Energy Consumption Analysis Table (Unit: Gigajoules, GJ)

Energy Consumption Items		Pan-International, Taipei (Including the United States) Note 6			Dongguan Pan-International			New Ocean Precision Component, Jiangxi			Honghuasheng, Yantai			CJ Electric Systems, Wuhu			Total			
		2021	2022	2023	2021	2022	2023	2021	2022	2023	2021	2022	2023	2021	2022	2023	2021	2022	2023	2023 (Excluding the United States)
Purchased Renewable Energy Source	Purchased Electricity (Solar)	0.000	0.000	0.000	NA	318.362	3,367.137	NA	0.000	0.000	NA	0.000	0.000	NA	0.000	0.000	NA	318.362	3,367.137	3,367.137
Purchased Non-renewable Energy Source	Fossil fuels	0.000	0.632	0.000	NA	342.188	277.613	NA	554.697	927.526	NA	24,659.910	16,546.178	NA	164.524	164.524	NA	25,721.952	17,915.841	17,915.841
	Purchased Electricity	525.812	459.774	470.620	23,455.550	21,780.497	16,688.345	32,353.344	24,681.888	21,851.852	495,746.842	435,796.056	400,535.893	NA	7,766.629	13,024.524	552,081.548	490,484.844	452,571.235	452,479.652
	Purchased Thermal Energy	0.000	0.000	0.000	NA	0.000	0.000	NA	0.000	0.000	NA	16,368.000	18,873.090	NA	0.000	0.000	NA	16,368.000	18,873.090	18,873.090
Renewable Energy Source Total consumption		0.000	0.000	0.000	NA	318.362	3,367.137	NA	0.000	0.000	NA	0.000	0.000	NA	0.000	0.000	NA	318.362	3,367.137	3,367.137
Non-renewable energy source Total consumption		525.812	460.406	470.620	NA	22,122.685	16,965.959	NA	25,236.585	22,779.378	NA	476,823.966	435,955.161	NA	7,931.154	13,189.048	NA	532,574.796	489,360.166	489,268.583
Energy Total consumption		525.812	460.406	470.620	NA	22,441.048	20,333.096	NA	25,236.585	22,779.378	NA	476,823.966	435,955.161	NA	7,931.154	13,189.048	NA	532,893.158	492,727.303	492,635.720
Total energy intensity (GJ/million revenue)		0.043	0.039	0.049	NA	12.395	12.656	NA	17.468	19.056	NA	92.425	96.930	NA	2.623	2.604	27.363	22.975	22.333	22.781
Non-renewable energy intensity (GJ/million revenue)		0.043	0.039	0.049	NA	12.219	10.560	NA	17.468	19.056	NA	92.425	96.930	NA	2.623	2.604	27.363	22.961	22.180	22.625

Note 1: The calorific values are sourced from the Bureau of Energy, MOEA, multiplying energy usage by unit calorific value and converting to gigajoules (GJ) to calculate energy consumption.

Note 2: Calorific value conversion: China Gasoline has a calorific value of 10,300kcacl/kg; China natural gas has a calorific value of 8,505kcal/m³, based on <GB/T 2589-2020 General Principles for Calculation of Energy Consumption.

Note 3: As most of the Group's subsidiaries are factory-type industries, million revenue is used as the denominator for intensity.

Note 4: The Group acquired CJ Electric Systems, Wuhu in 2022, so there is no relevant information for 2021.

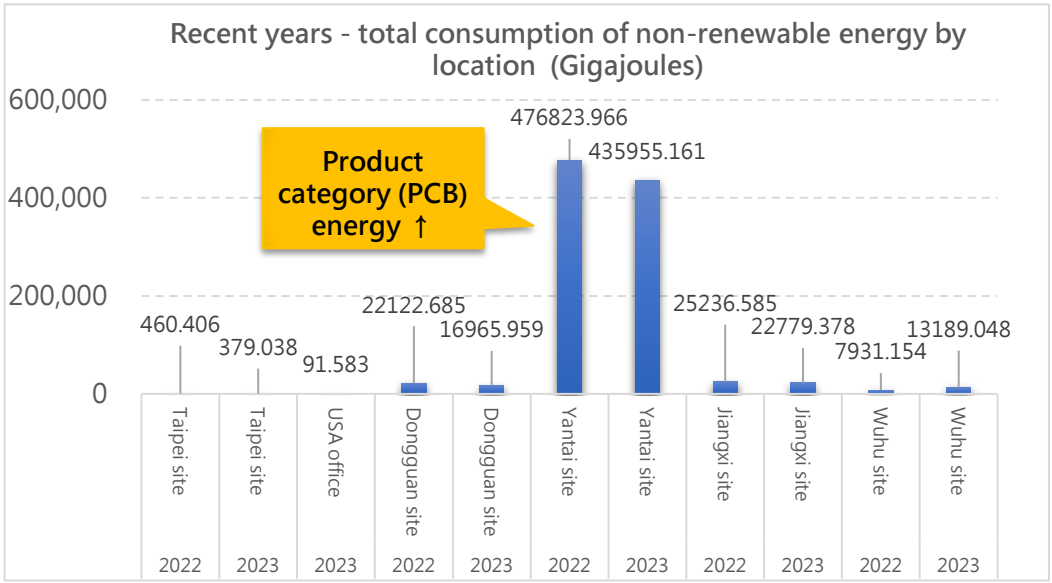
Note 5: CJ Electric Systems, Wuhu expanded in 2023 (Dechan Plant area increased by 10,600 pings).

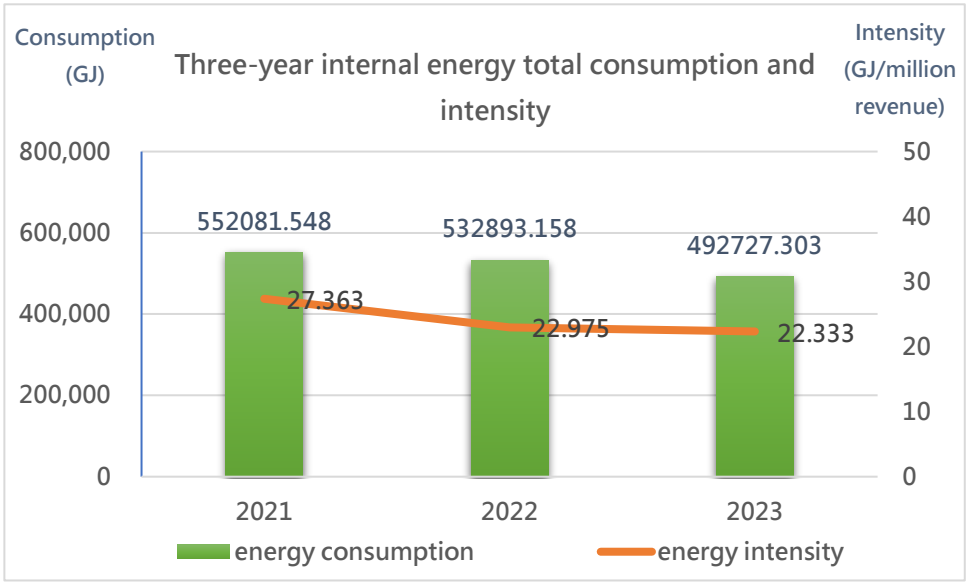
Note 6: From 2023, Taipei Headquarters includes US subsidiary data.

Note 7: The 2022 sustainability report did not calculate fossil fuels and thermal energy.

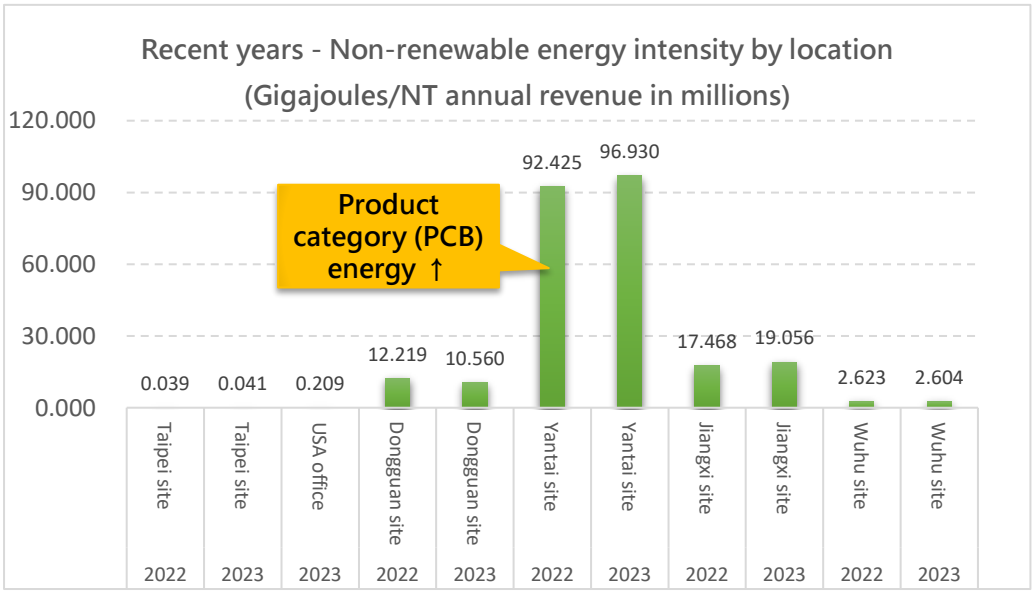
Note 9: Conversion: China gasoline 1 L = 1 L x 0.725 L/kg density x gasoline calorific value 10300 kcal/kg = 14206.8966 kcal/L x 4.187 KJ/kcal = 0.0595 GJ

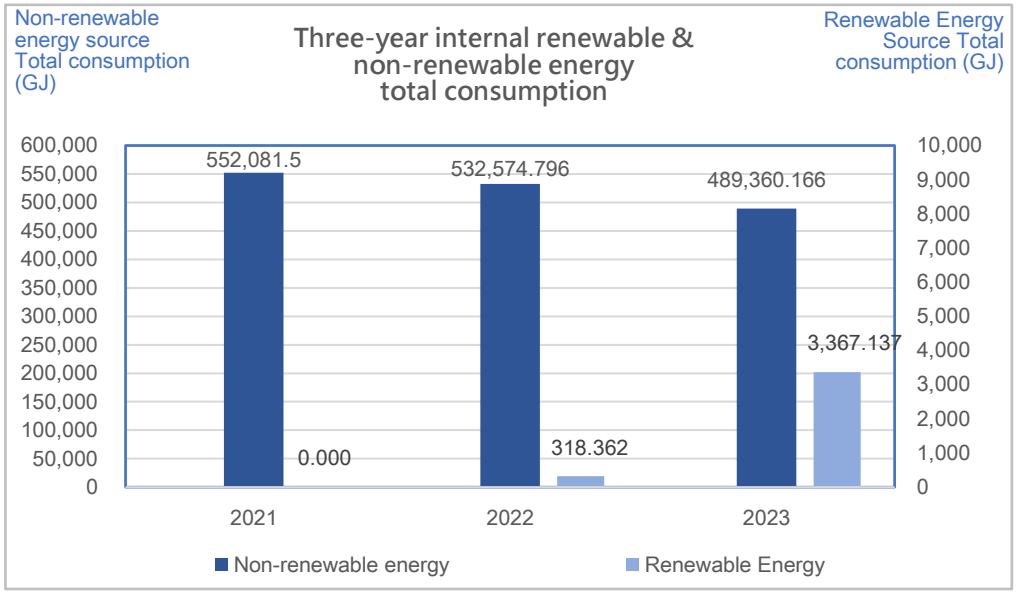
Note 10: Conversion: China diesel 1 L = 1 L x 0.840 L/kg density x diesel calorific value 10200 kcal/kg = 12142.8571 kcal/L x 4.187 KJ/kcal = 0.0508 GJ





Note 1: To analyze carbon reduction trends, the US chart is illustrated separately / Honghuasheng, Yantai is a PCB plant with different industry from other plants.
Note 2: In 2021, fossil fuels and thermal energy were not included in the calculations.





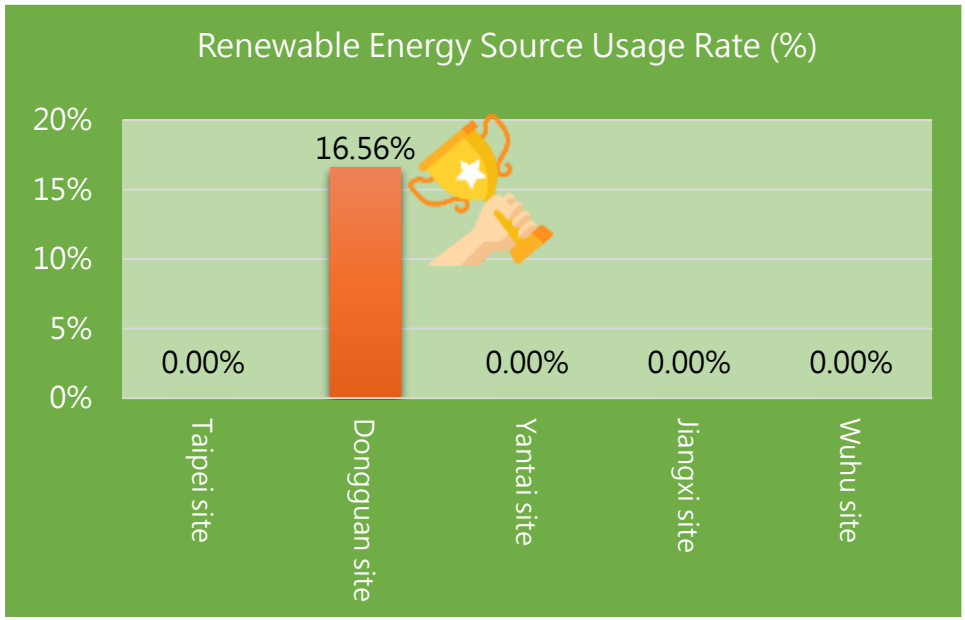
Note: The total values in the above charts are within the scope of this disclosure

▼ **Pan-International Group's Energy Consumption Proportion** (Unit: %)

Energy consumption items		Energy Consumption Percentage	
		2022	2023
Purchased - Renewable Energy Source	Purchased Electricity (Solar)	0.06%	0.68%
Purchased - Non-renewable Energy Source	Purchased Electricity	92.04%	91.85%
	Purchased Thermal Energy	3.07%	3.83%
	Fossil fuels	4.83%	3.64%
Self-produced Energy	Solar, Wind, Hydro	0.00%	0.00%
Total Renewable Energy Consumption		0.06%	0.68%
Total Non-renewable Energy Consumption		99.94%	99.32%

Note: In mainland China, purchased - renewable energy source is leasing sites (rooftops) to solar energy operators, who then provide the produced solar energy at preferential prices.

▼ 2023 Renewable Energy Usage Rate by Plant (and Future Plans):



Description & Future Plans

Dongguan Pan-International
Solar stations started operation in December 2022,
Increased to **16.56%** in 2023.

Honghuasheng, Yantai
The solar station originally scheduled for completion in 2022 was delayed due to the pandemic. Expected completion in the first half of 2024

New Ocean Precision Component, Jiangxi
Evaluating whether to build the solar station

CJ Electric Systems, Wuhu
Planning the solar station construction

5.1.3 Greenhouse Gas Inventory

Pan-International Group follows Greenhouse gases Part 1: Specification with Guidance, adopting the operational control approach to set organizational boundaries. The disclosure scope for 2023 is Category 1 direct emissions and Category 2 energy indirect emissions (according to the “Greenhouse Gas Reduction and Management Act” now the “Climate Change Response Act” required disclosure scope). Future plans include evaluating the significance of indirect emission sources from 2024,assessingwhether to include Categories 3 to 6 in the inventory, and commissioning external third-party verification. The Group’s Taipei parent company and subsidiaries in mainland China: Dongguan Pan-International, New Ocean Precision Component, Jiangxi, Honghuasheng, Yantai, CJ Electric Systems, Wuhu have conducted annual greenhouse gas inventories since 2022, using this as the base year to regularly assess and control organizational greenhouse gas emissions. The base year 2022 inventory scope was Categories 1 and 2.

We use the emission factor method for calculation, multiplying activity data by emission factors and global warming potential (GWP values) to convert to carbon dioxide equivalent (CO2e), with tons of carbon dioxide equivalent(tCO2e) as the unit. Emission factor sources are the latest Greenhouse Gas Emission Factor Management Table (version 6.0.4) announced by the Environmental Protection Administration, Executive Yuan, GWP adopts values from the IPCC Sixth Assessment Report. China’s ecological environment department, China’s calorific values, thermal energy uses values from GB/T 2589-2020 General Rules for Calculation of Comprehensive Energy Consumption and the National Development and Reform Commission’s Guidelines for Accounting Methods and Reporting of Greenhouse Gas Emissions by Electronic Equipment Manufacturing Enterprises (Trial) to calculate the calorific values of China’s diesel and gasoline.

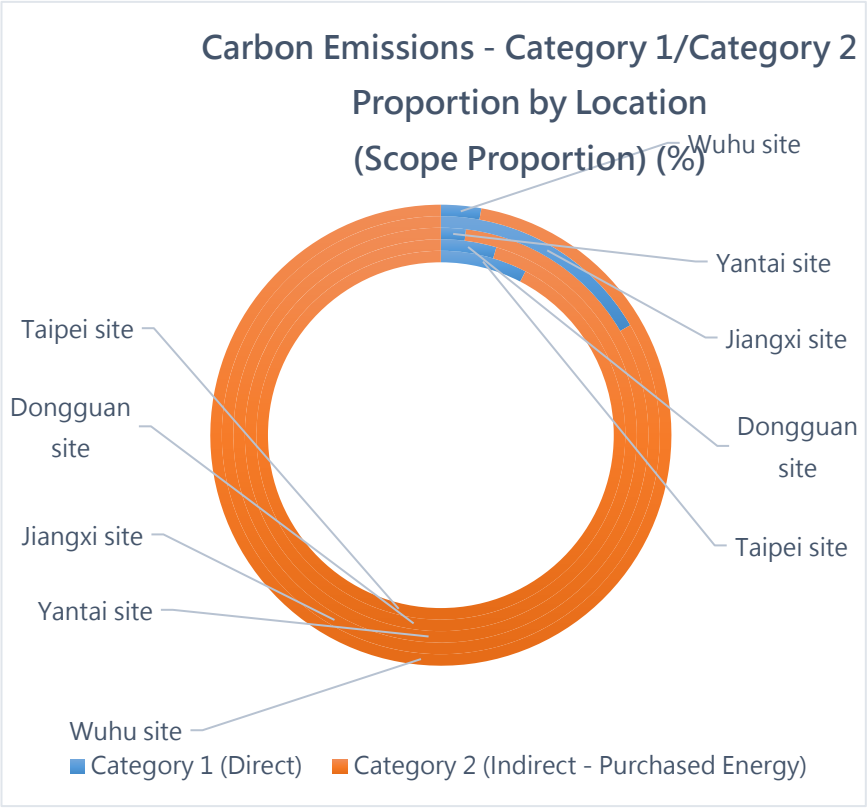
In2023, the total greenhouse gas emissions for Pan-International parent company, subsidiaries in mainland China, and subsidiaries in the U.S. amounted to75,619.848tCO2e. When calculated per total revenue (NT$ million), the emission intensity was3.427tCO_2e per million dollars of operating income.

As the US subsidiary was not included in the base year (2022), we compare this year’s emissions and emission intensity with the base year on the same basis (excluding the US subsidiary). This year’s emissions **decreased by 8,572.237 tCO2e carbon emissions / down 10.18%**compared to the base year, and greenhouse gas emission intensity decreased by 3.66% compared to the base year, achieving the short-term indicator. The main reasons for both decrease are actively replacing energy-saving equipment and allocating energy consumption to maximize contribution, as well as each plant’s active planning and construction of solar power stations. Additionally, local power plants in each region are increasing new green energy sources in stages, such as wind power and solar power generation, to continuously optimize the electricity consumption structure, thereby lowering electricity emission factors.

▼**Greenhouse Gas Emissions Proportion** (Unit: tCO_2e)

Greenhouse Gas Emissions	2022	2023
Category 1 Proportion	3.84%	2.46%
Category 2 Proportion	96.16%	97.54%

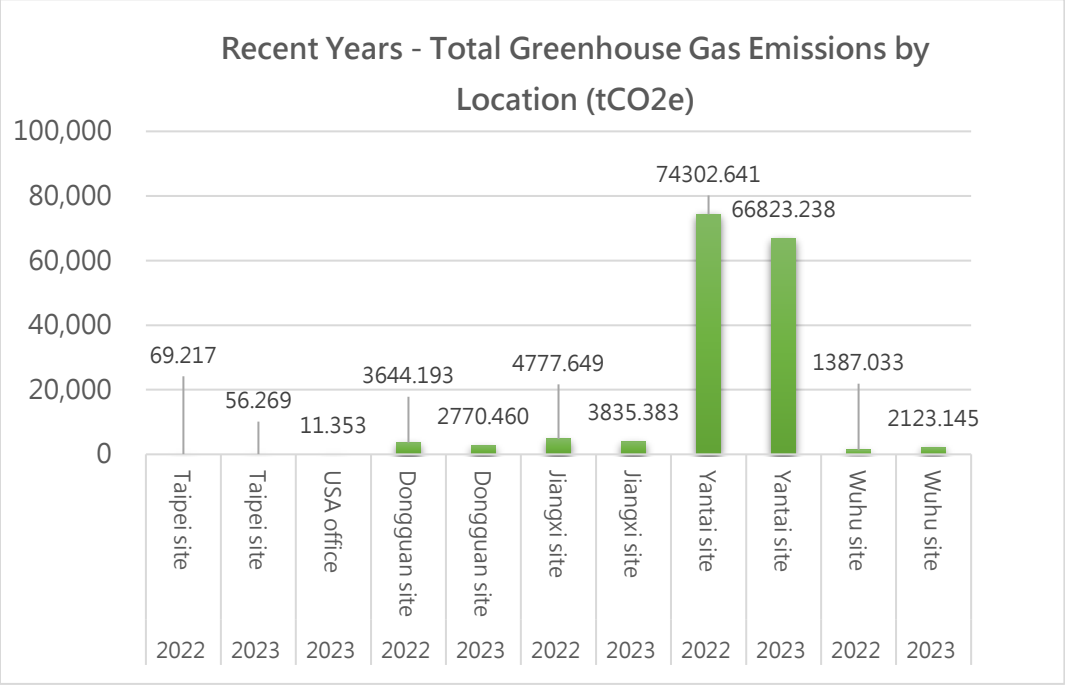
Carbon Emissions - Categories 1 & 2 Proportion (Scope Proportion) (%)		
Plant	**Category 1 (Direct)**	**Category 2 (Indirect - Purchased Energy)**
Pan-International, Taipei	7.59%	92.41%
Dongguan Pan-International	4.57%	95.43%
Honghuasheng, Yantai	1.94%	98.06%
New Ocean Precision Component, Jiangxi	16.62%	83.38%
CJ Electric Systems, Wuhu	2.82%	97.18%

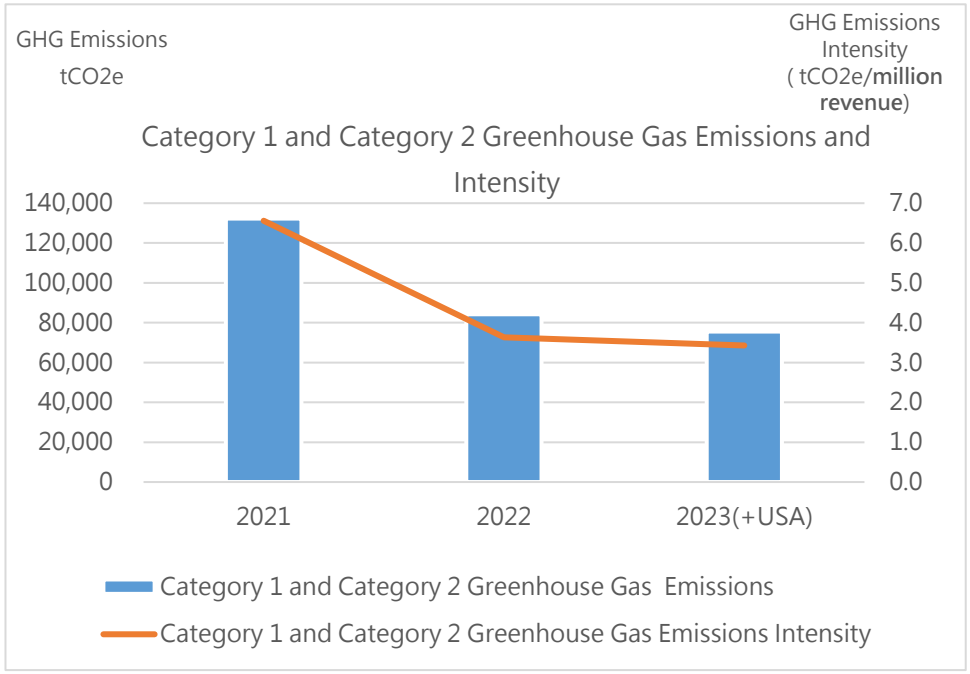


▼ Greenhouse Gas Emissions Analysis Table(Unit: tCO2e)

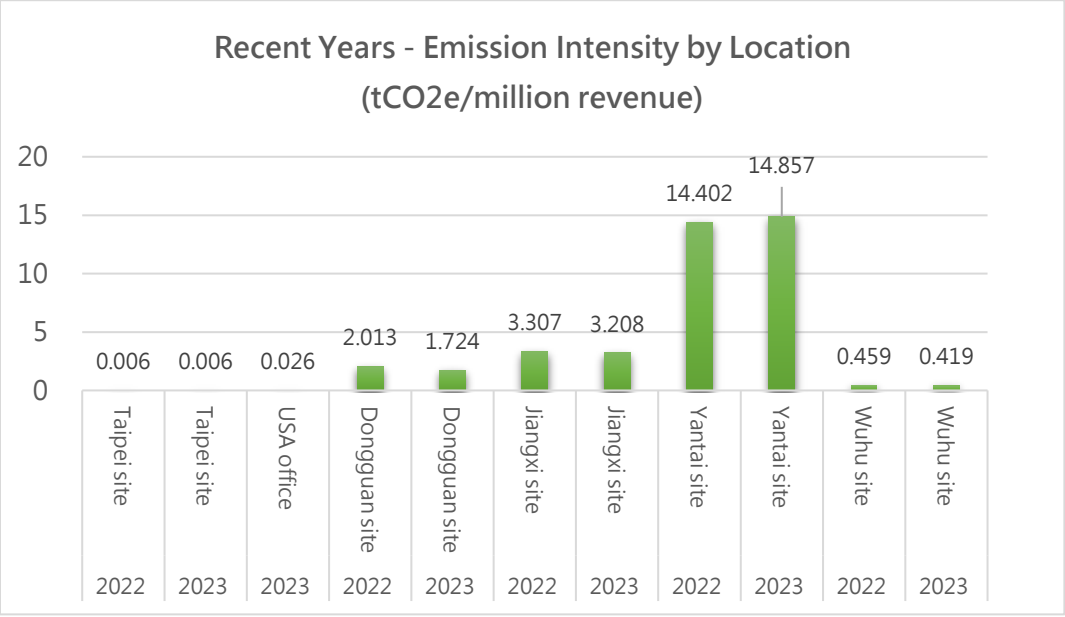
Items	Pan-International, Taipei (Parent Company)			Dongguan Pan-International		New Ocean Precision Component, Jiangxi		Honghuasheng, Yantai		CJ Electric Systems, Wuhu		Total		
Greenhouse Gas Emissions	2022 (Excluding the United States)	2023 (Excluding the United States)	2023 (With the United States)	2022	2023	2022	2023	2022	2023	2022	2023	2022 (Excluding the United States)	2023 (Excluding the United States)	2023 (With the United States)
Category 1	4.2096	4.2687	5.0157	129.0623	126.7471	794.2667	373.6847	2169.5195	1295.6259	133.5848	59.843	3230.6429	1860.1690	1860.916
Category 2	65.0069	52.0005	62.6064	3,515.1302	2,643.7125	3,983.3825	3,461.6982	72,133.1213	65,527.6125	1,253.4477	2,063.302	80,950.0886	73,748.3260	73,758.932
Total Greenhouse Gas Emissions	69.217	56.269	67.622	3,644.193	2,770.460	4,777.649	3,835.383	74,302.641	66,823.238	1,387.033	2,123.145	84,180.732	75,608.495	75,619.848
Emission Intensity (tCO_2e/million revenue)	0.006	0.006	0.007	2.013	1.724	3.307	3.208	14.402	14.857	0.459	0.419	3.629	3.496	3.427

Note: The Group acquired CJ Electric Systems, Wuhu in 2022, so there is no relevant information for 2021.
Note: CJ Electric Systems, Wuhu expanded in 2023 (Dechan Plant area increased by 10,600 pings).
Note: From 2023, Pan-International, Taipei includes the data of US subsidiary.
Note: Greenhouse gas types include carbon dioxide (CO2), methane (CH4), nitrous oxide (N2O), and hydrofluorocarbons (HFCs), totaling 4 greenhouse gases.





Note: To analyze carbon reduction trends, the chart for the US is illustrated separately



5.1.4 Energy-saving and Carbon Reduction Measures

(GRI 302-4)

Using**2022**as the base year, **Pan-International Group** develops energy-saving plans and designs based on **internal energy guidelines or energy management standards** and incorporate efficiency standards for energy-consuming equipment into future equipment replacement priorities, aiming to **achieve net zero emissions by 2050**, reducing **non-renewable energy intensity**by**1**% annually, and **reducing emission intensity by 1.5% annually to achieve a 7.5% reduction compared to the base year (2022) by 2027.**

We mainly adopt measures such as **replacing old with new (energy-saving devices), setting up solar plants, making improvements on process and equipment (unit)**, and regularly track performance results. Through these measures in**2023**, Pan-International Group saved a total of**35,458.3419**GJ of energy and reduced **5,364.6328**tCO2e emissions.

▼ **Pan-International Group Energy-saving and Carbon Reduction Measures Overview**

Location	Energy-saving Method	Method Description	Energy Saving Items	Energy Saving Volume	Energy Saving Volume (GJ)	Reduction Scope	Carbon Reduction Volume (tCO_2e)	Calculation Method
Pan-International, Taipei (Parent Company)	Replacement of old with new (energy-saving devices)	Replace diesel forklifts with electric forklifts	Diesel	17.97L	0.6320	Category 1	0.0468	Direct Measurement
Dongguan Pan-International	Replacement of old with new (energy-saving devices)	Replace engine fork lift truck with electric forklift	Diesel	230L	11.6937	Category 1	0.7159	Direct Measurement
	Solar plant installation	Photovoltaic (we provide the roof, and the solar power belongs to the ESCO operator, who sells it back to the plant at a lower price as purchased green energy)	Solar energy	Energy generated: 935,316 kWh of solar energy	NA	Category 2	533.4107	Direct Measurement
New Ocean Precision Component, Jiangxi	Equipment (unit) improvement:	Install a valve before the pipeline supplying the air compressor and cold dryer. On both ends of the valve, install a 7.5KW booster pump, allowing flexible switching. Use the air conditioning in summer and autumn and turn off the 7.5KW pump to operate with 90KW pump. During the spring and winter, turn off 90KW pump and activate the 7.5KW pump to supply the air compressor and cold dryer exclusively.	Electricity	247,104 kWh	889.7770	Category 2	140.9234	Model analysis
	Process improvements:	By reaming the existing mold base from 2CAV to 4CAV, while meeting delivery demands, the equipment's operating time will be reduced by 50%, resulting in a 50% savings in electricity consumption.	Electricity	25,091 kWh	90.3482	Category 2	14.3094	Evidence-based Estimation
	Equipment (unit)	Add a heat recovery device to existing drying	Electricity	18,360 kWh	66.1111	Category 2	10.4707	Evidence-

Location	Energy-saving Method	Method Description	Energy Saving Items	Energy Saving Volume	Energy Saving Volume (GJ)	Reduction Scope	Carbon Reduction Volume (tCO_2e)	Calculation Method
	improvement:	machine, allowing heat to be transferred through insulated pipeline to the air inlet for circulation. This will reduce the drying machine's heating time and frequency, resulting in energy savings.						based Estimation
	Equipment (unit) improvement:	Manual wetting is slow and insufficient. By integrating a solder pot into the terminal crimping machine to improve the level of automation. Only one machine needed to meet production demands, reducing the electricity consumption of three solder pot and eliminating four wetting personnel (the machine will be operated by the personnel from the terminal crimping machine)	Electricity	28,080 kWh	101.1110	Category 2	16.0140	Evidence-based Estimation
	Equipment (unit) improvement:	By changing from coil shipment to direct shaft shipment to streamline the process and lower costs	Electricity	108,691.2 kWh	391.3774	Category 2	53.8021	Evidence-based Estimation
Honghuasheng, Yantai	Waste Heat Recovery	Energy-saving Improvement Plan for Waste Heat Recovery in the Compressed Air System	Electricity	226,528 kWh	7,587.7819	Category 2	425.6542	Direct Measurement
	Replacement of Old with New	Energy-Saving Improvement Plan for Pressing and Cutting Process	Electricity	472,124 kWh	1,699.6461	Category 2	269.2523	Direct Measurement
	Parameter Adjustment	Energy-Saving Improvement Plan for Drilling Machine Efficiency	Electricity	937,843.49 kWh	3,376.2360	Category 2	534.8521	Evidence-based Estimation
	Equipment (unit) improvement:	Energy-Saving Improvement Plan for air Compressor System	Electricity	4,638,600 kWh	16,698.9570	Category 2	2,645.3936	Evidence-based Estimation
	Equipment (unit) improvement:	Energy-Saving Improvement Plan for Waste gas Scrubber	Natural gas	538,278 kWh	1,938.2422	Category 2	306.9799	Evidence-based Estimation
	Equipment (unit) improvement:	Energy-Saving Improvement Plan for Natural gas Boiler Replacing Electric Heating	Electricity	723,744 kWh	2,606.0719	Category 2	412.7512	Evidence-based Estimation
CJ Electric Systems, Wuhu	Replacement of Old with New	Plant lighting replaced from 400W halogen lamps to 150W energy-saving lamps	Electricity	99 kWh	0.3564	Category 2	0.0565	Evidence-based Estimation
				Total	35,458.3419		5,364.6328	
* The US subsidiary is an office with less than 10 people, so omitted it from this list.								

5.2 Water Resource Management

(GRI 303-3~303-5)

The primary water sources of the Group's key subsidiaries in China (with production plants + 100% operational control) all come from local water companies in China, with water sources from reservoirs. Except for Honghuasheng, Yantai, which is in a water-stressed area, water withdrawal at other locations comes from non-water-stressed areas or protected areas, with little impact on water sources.

The Group's Dongguan Pan-International, New Ocean Precision Component, Jiangxi, and CJ Electric Systems, Wuhu do not cause significant environmental impacts from water withdrawal and wastewater discharge. The production wastewater generated does not reach industrial wastewater treatment standards and is treated as domestic water, which is then directly discharged into the urban sewage network for collection and treatment at sewage treatment plants.

As the Honghuasheng, Yantai plant's process involves PCB process water, and the industrial wastewater produced is treated through the on-site sewage treatment plan, which complies with local regulations. The wastewater is treated to meet the domestic discharge standards before being released into the urban sewage network for further treatment. In terms of water conservation, we continuously optimize processes to improve water recycling and reuse rates. Currently, after implementing improvements, wastewater generated from pure water production is reused as recycled water, achieving a recycling and reuse rate exceeding 10%.

For wastewater discharge management, each plant obtains permits from the government in accordance with local regulations and performs basic on-site treatment. Once the wastewater meets discharge standards, it is released into the government's sewage network for further treatment by government-commissioned agencies.

We continue to vigorously promote and implement water-saving policies, aiming to achieve water reduction goals in the future.

In 2023, Pan-International Group's total water withdrawal was 1,543.391 thousand cubic meters (million liters) of which 1,339.637 thousand cubic meters (million liters) came from water-stressed areas. The total freshwater withdrawal was 1,543.391 thousand cubic meters, total water discharge was 1,234.713 thousand cubic meters, and total water consumption was 308.678 thousand cubic meters.

An overview of the water withdrawal situation from 2021 to 2023 is summarized as follows:

- The Group (within boundary) has a total water saving rate of about 15.86% compared to 2022.
- Dongguan Pan-International, New Ocean Precision Component, Jiangxi, and Honghuasheng, Yantai show a decreasing trend in water withdrawal from 2021-2023.
- Honghuasheng, Yantai has a water saving rate of approximately 17.29% compared to 2022, with water savings coming from two measures:
    1. Continuous recycling and reuse of secondary water produced from RO water production.
    2. Replacement of three sets (fifteen towers in total) with water-saving type cooling towers in 2022. Cooling tower

- New Ocean Precision Component, Jiangxi has a water saving rate of about 33.84% compared to 2022, with water savings coming from:
    1. Plant-wide pipeline inspection, with plant affairs repairing leakage points to improve unnecessary water consumption
- Pan-International, Taipei is an office with 50 people, showing no significant difference in water withdrawal.
- CJ Electric Systems, Wuhu was not a subsidiary of the Group in 2021, so it is not included in the calculation. It was acquired by the Group in 2022, and the plant expanded in 2023, so water withdrawal increased by 29,383 tonnes compared to 2022 (an increase of 94.18%).
- As the Group is not a major water user, there are no flow meters added to measure water discharge. For water discharge, an estimation method is used: waste (discharge) water volume is approximately equal to 80% of water withdrawal.

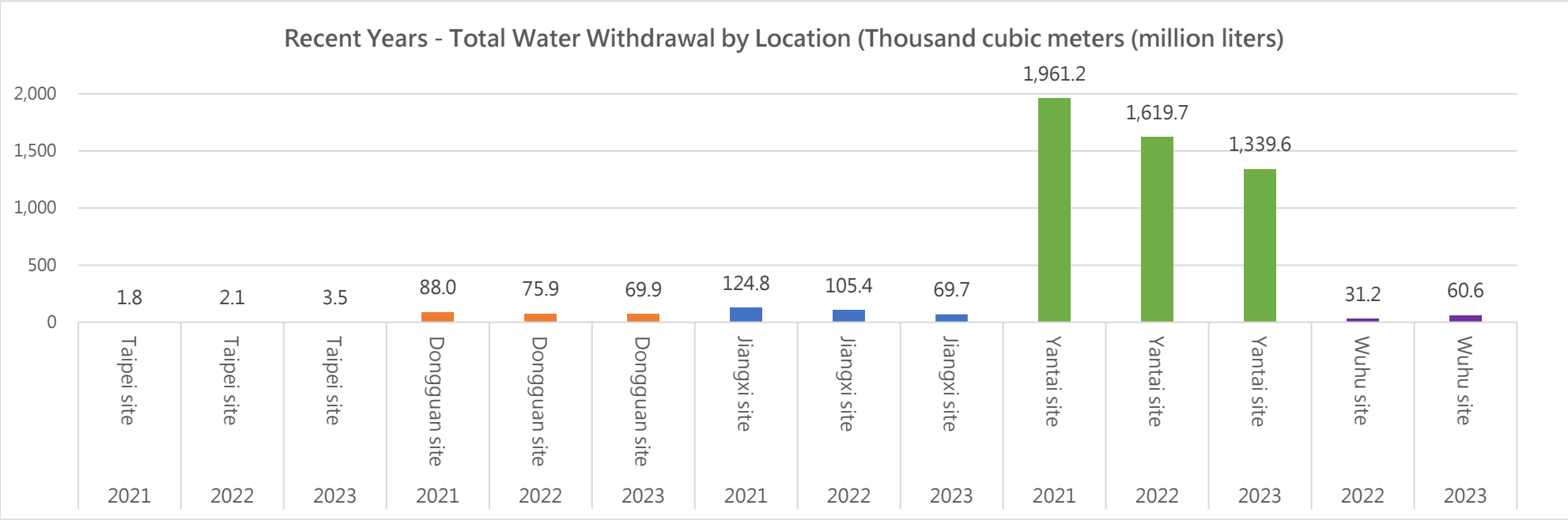
▼ Water Withdrawal (Unit: Thousand cubic meters (million liters))

Location	Water Stress Situation	Water Source Category Note2	Water Quality Indicator Note 3	2021	2022	2023
Pan-International, Taipei (Parent Company) Note 1	Low-Medium	Third-party water	Pure water	1.837	2.123	3.484
Dongguan Pan-International	Low	Third-party water	Pure water	87.997	75.938	69.948
New Ocean Precision Component, Jiangxi	Low	Third-party water	Pure water	124.840	105.410	69.740
Honghuasheng, Yantai	Extremely High	Third-party water	Pure water	1,961.225	1,619.681	1,339.637
CJ Electric Systems, Wuhu	Low-Medium	Third-party water	Pure water	NA Note 4	31.200	60.583
Total water withdrawal				2,175.899	1,834.352	**1543.391**

Note 1: Since the US subsidiary only rents a small office in a large area, and has few personnel (about 7 people), the landlord cannot provide water information for that location. As it is difficult to separate and the usage is extremely low, it has been disregarded. Additionally, the Group acquired CJ Electric Systems, Wuhu in 2022, so there is no water withdrawal information for 2021.

Note 2: The water source category for each location is all from third-party water (tap water), excluding other sources such as surface water, groundwater, seawater, and produced water.

Note 3: The water quality indicator for each location is pure water.


Recent Years - Total Water Withdrawal by Location (Thousand cubic meters (million liters)
2,000
1,500
1,000
500
0
1.8
2.1
3.5
88.0
75.9
69.9
124.8
105.4
69.7
1,961.2
1,619.7
1,339.6
31.2
60.6
Taipei site
Taipei site
Taipei site
Dongguan site
Dongguan site
Dongguan site
Jiangxi site
Jiangxi site
Jiangxi site
Yantai site
Yantai site
Yantai site
Wuhu site
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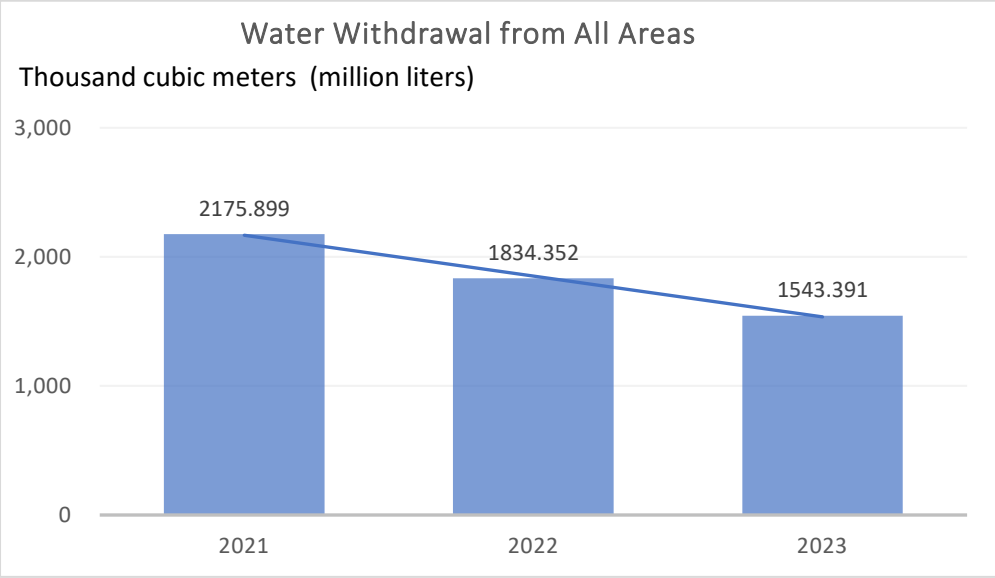
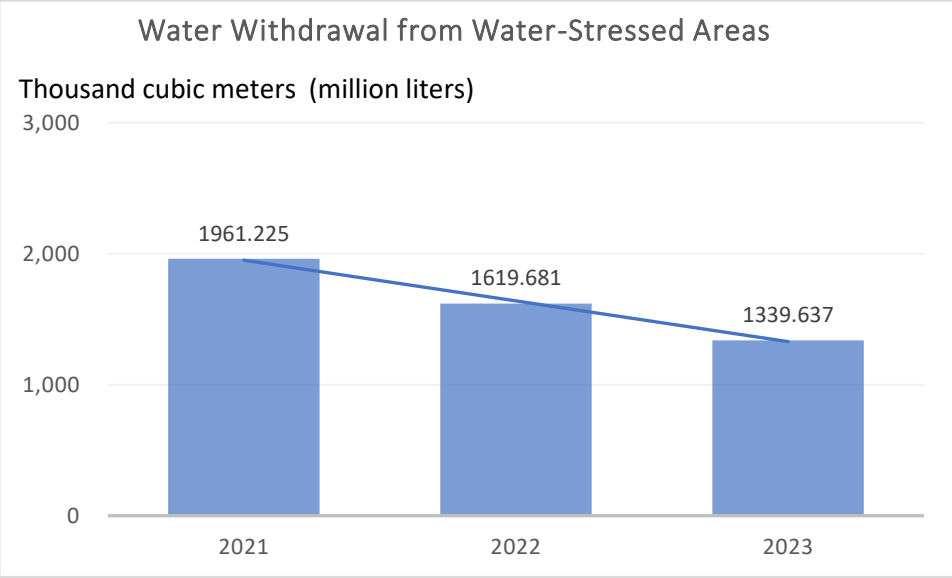

Water Withdrawal from All Areas
Thousand cubic meters (million liters)
3,000
2,000
1,000
0
2175.899
1834.352
1543.391
2021
2022
2023


Water Withdrawal from Water-Stressed Areas
Thousand cubic meters (million liters)
3,000
2,000
1,000
0
1961.225
1619.681
1339.637
2021
2022
2023

▼ Water Discharge (Unit: Thousand cubic meters (million liters)

Location	Water Discharge Category Note 2	Water Quality Indicator Note 3	2021	2022	2023
Pan-International, Taipei (Parent Company) Note 1	Third-party water	Freshwater	1.470	1.698	2.787
Dongguan Pan-International	Third-party water	Freshwater	70.398	60.750	55.958
New Ocean Precision Component, Jiangxi	Third-party water	Freshwater	99.872	84.328	55.792
Honghuasheng, Yantai	Third-party water	Freshwater	1,841.215	1,523.289	1,071.710
CJ Electric Systems, Wuhu	Third-party water	Freshwater	NA	24.960	48.466
Total Water Discharge			2,012.955	1,695.025	1,234.713

Note 1: Does not include water information of the US subsidiary, as the usage is extremely small, it is ignored here.
Note 2: Waste (discharge) water volume uses an estimation method, approximately equal to 80% of water withdrawal.
Note 3: The Group acquired CJ Electric Systems, Wuhu in 2022, so there is no information for CJ Electric Systems, Wuhu in 2021.

▼ Water Consumption (Unit: Thousand cubic meters (million liters))

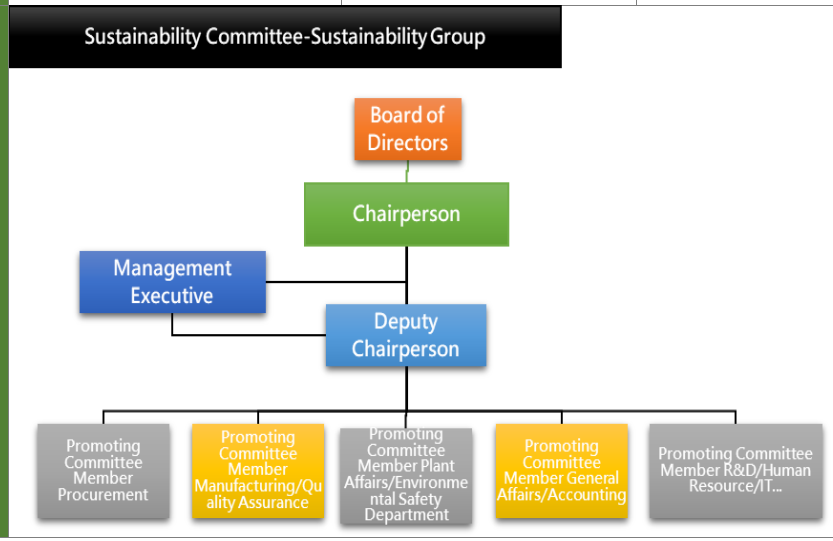
Items	Pan-International, Taipei (Parent Company)			Dongguan Pan-International			New Ocean Precision Component, Jiangxi			Honghuasheng, Yantai			CJ Electric Systems, Wuhu			Total		
	2021	2022	2023	2021	2022	2023	2021	2022	2023	2021	2022	2023	2021	2022	2023	2021	2022	2023
Total Water Withdrawal	1.837	2.123	3.484	87.997	75.938	69.948	124.840	105.410	69.740	1961.225	1619.681	1339.637	NA	31.200	60.583	2,175.899	1,834.352	1543.391
Total Water Discharge	1.470	1.698	2.787	70.398	60.750	55.958	99.872	84.328	55.792	1841.215	1523.289	1071.710	NA	24.960	48.466	2,012.954	1,695.025	1234.713
Total Water Consumption	0.367	0.425	0.697	17.599	15.188	13.990	24.968	21.082	13.948	120.010	96.392	267.927	NA	6.240	12.117	162.945	139.326	308.678

Note*: No information for CJ Electric Systems, Wuhu in 2021. The Group acquired CJ Electric Systems, Wuhu in 2022.
Note*: The US subsidiary water information is not included, as the usage is extremely low, it is disregarded here.

5.3 Waste Management

Material Topic Management Approach: Waste

Corresponding GRI Indicators: GRI 3-3, GRI 306-3, GRI 306-4, GRI 306-5

Impact Description		1. Causes environmental pollution 2. Penalties from authorities due to violations of regulations				
Location		**Pan-International, Taipei (Parent Company)**	**Dongguan Pan-International**	**New Ocean Precision Component, Jiangxi**	**Honghuasheng, Yantai**	**CJ Electric Systems, Wuhu**
Policies or Commitments Established or Followed	**Internal Regulations**	V	V	V	V	V
	Government Regulations	V	V	V	V	V
Responsible Units		Sustainability Committee / Chairman / Management Committee	Sustainability Committee / Deputy Chairperson	Sustainability Committee / Deputy Chairperson	Sustainability Committee / Deputy Chairperson	Sustainability Committee / Deputy Chairperson
Management Actions						

- Establish Sustainability Committee: Regularly discuss the implementation and planning of work related to water, waste issues.
- Set goals for environmental issues and regularly review and improve them.

Process for Monitoring the Effectiveness of Actions	• Sustainability Committee: For key subsidiaries (with production plants), the Group established a management organization chaired by the Chairman, who serves as the Chairperson. The Committee meets regularly to discuss waste treatment issues and report the discussion results and review. • The Board of Directors supervises. • Through the Sustainability Committee, develop waste treatment guidelines and goals, and coordinate and integrate waste treatment strategies and plans of each subsidiary. Conduct regular meetings to continuously confirm and review goal achievement rates, challenging new energy-saving milestones.

Management Performance Indicators				
Indicators	**Short-term Goal (2024)**	**Mid-term Goal (2022-2027)**	**Long-term Goal (2022-2050)**	**2023 Achievement**
Zero violations	**100% achieved** 	Comply with international and local environmental regulations to achieve zero violations.		
*This year's organizational boundary includes locations: Pan-International, Taipei, US subsidiary, and subsidiaries in mainland China: Dongguan Pan-International, New Ocean Precision Component, Jiangxi, Honghuasheng, Yantai, CJ Electric Systems, Wuhu				

Explanation:

*Except for Honghuasheng, Yantai (due to its PCB industry being different from other assembly plants), the waste generated by the Group's other subsidiaries in mainland China consists of employee domestic waste and general non-hazardous industrial solid waste. Only a very small amount of hazardous waste is produced, so no specific reduction plans have been set.

* For Honghuasheng, Yantai, it has jointly obtained the UL 2799 Zero Waste to Landfill Highest Level Platinum Certification with Yantai Industrial Park, Hongfujin, Hongfutai, Futaijin in 2023 (expected to obtain the factory's own certificate next year).

* The waste generation and reduction in 2023 have limited reference value because Honghuasheng, Yantai's hazardous waste disposal contractor ceased operations in 2022. As a result, some copper-containing waste (approximately 560 tonnes) generated in 2022 was disposed of in 2023. In essence, the generation of copper-containing waste in 2023 should have decreased.

5.3.1 Waste Impact Assessment

The Group refers to domestic and international environmental impact reports, considering each stage of product life cycle (raw material extraction, production and manufacturing, sales and distribution, product use and waste disposal stages) to identify waste generated from organizational internal and value chain upstream and downstream operational activities. The potential impacts of waste on the environment and society are assessed, allowing the Company to create a value chain and waste impact context diagram.

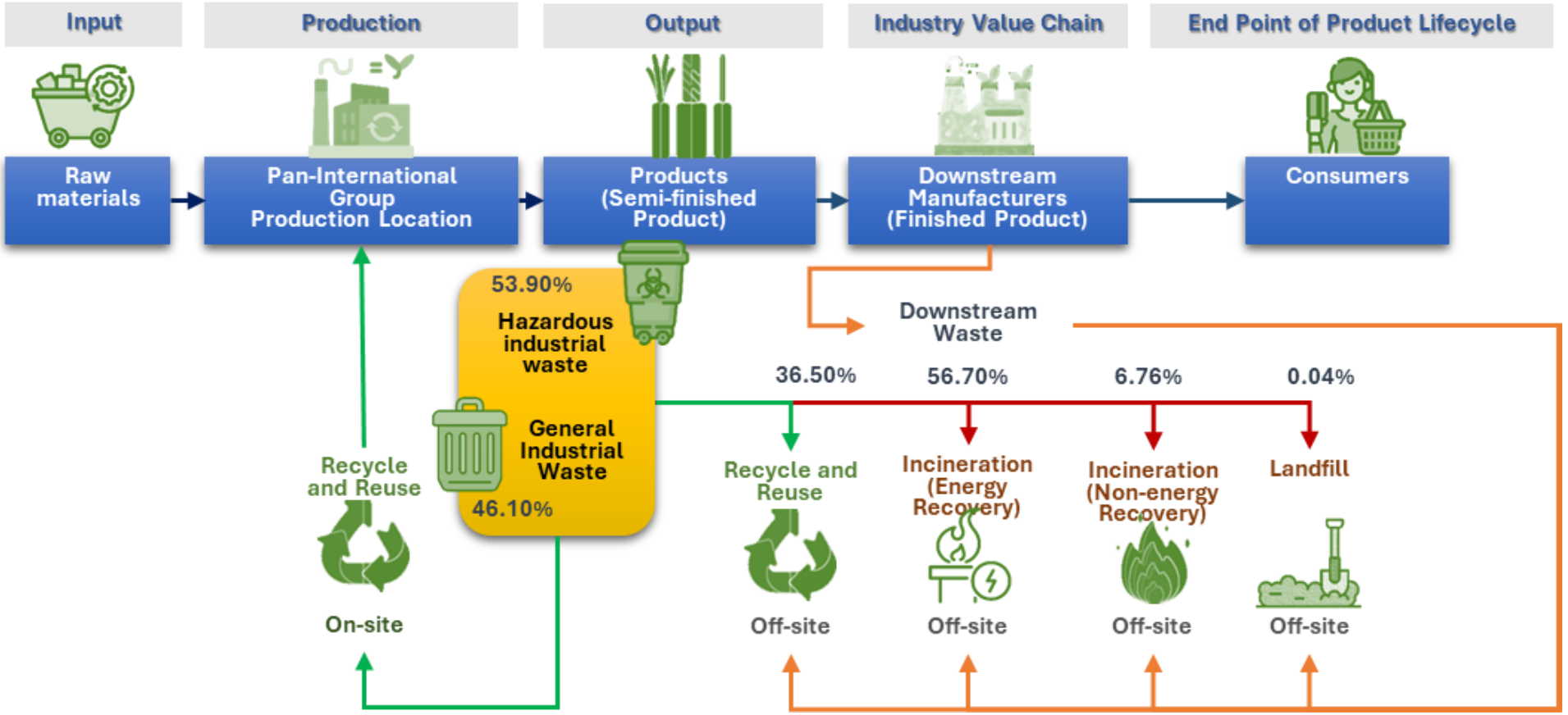
Except for the plant at Honghuasheng, Yantai, which has a different industry (PCB plant) from other plants, the waste generated by other plants in mainland China of the Group includes hazardous and non-hazardous industrial waste, mainly employee domestic waste, general industrial solid waste, and very small amounts of hazardous waste. Honghuasheng, Yantai plant generates more hazardous waste due to its industry (PCB plant). We develop corresponding management measures to address the potential impacts of various types of waste. Waste management units regularly supervise and assess the implementation effectiveness to mitigate or avoid negative impacts on both the internal organization or the external environment.

▼ Pan-International Group's Value Chain and Potential Impact Context

Location	Value Chain Stage	Activities	Waste Types	Waste Categories	Disposal Methods	Disposal Units	Potential Impacts
Pan-International, Taipei (Parent Company)	Own Operations	Daily office waste/others	Domestic waste generated by employees	Non-hazardous waste	Incineration (without energy recovery)	External third party	Improper treatment causes environmental pollution
Dongguan Pan-International	Own Operations	Daily office waste/Product scrapping or disposal	Domestic waste generated by employees	Non-hazardous waste	Incineration (without energy recovery)	External third party	Improper treatment causes environmental pollution
	Own Operations	Raw material supply/Product processing/Product packaging/Product scrapping or disposal/Others	Industrial solid waste	Non-hazardous waste	Other recycling operations	External third party	Improper treatment causes environmental pollution
	Own Operations	Raw material supply/Product processing/Product packaging/Product scrapping or disposal/Others	Hazardous waste	Hazardous waste	Incineration (without energy recovery)/Preparation for reuse	External third party	Improper treatment 1. causes environmental pollution 2. penalties from authorities due to violations of regulations

New Ocean Precision Component, Jiangxi	Own Operations	Daily office waste/Product scrapping or disposal	Domestic waste generated by employees	Non-hazardous waste	Incineration (with energy recovery)/ Other recycling	External third party	Improper treatment causes environmental pollution
	Own Operations	Raw material supply/Product processing/Product packaging/Product scrapping or disposal/Others	Industrial solid waste	Non-hazardous waste	Recycling	External third party	Improper treatment causes environmental pollution
	Own Operations	Raw material supply/Product processing/Product packaging/Product scrapping or disposal/Others	Hazardous waste	Hazardous waste	Incineration (with energy recovery)/ Recycling/Preparation for reuse	External third party	Improper treatment 1. causes environmental pollution 2. penalties from authorities due to violations of regulations
Honghuasheng, Yantai	Own Operations	Daily office waste/Product scrapping or disposal	Domestic waste generated by employees	Non-hazardous waste	Incineration (with energy recovery)/ Other recycling	External third party	Improper treatment causes environmental pollution
	Own Operations	Raw material supply/Product processing/Product packaging/Product scrapping or disposal/Others	Industrial solid waste	Non-hazardous waste	Recycling	External third party	Improper treatment causes environmental pollution
	Own Operations	Raw material supply/Product processing/Product packaging/Product scrapping or disposal/Others	Hazardous waste	Hazardous waste	Incineration (with energy recovery)/ Recycling	External third party	Improper treatment 1. causes environmental pollution 2. penalties from authorities due to violations of regulations
CJ Electric Systems, Wuhu	Own Operations	Daily office waste/Product scrapping or disposal	Domestic waste generated by employees	Non-hazardous waste	Incineration (without energy recovery)	External third party	Improper treatment causes environmental pollution
	Own Operations	Raw material supply/Product processing/Product packaging/Product scrapping or disposal/Others	Industrial solid waste	Non-hazardous waste	Incineration (without energy recovery)/Other recycling	External third party	Improper treatment causes environmental pollution

▼ Pan-International Group - Value Chain and Waste Impact Diagram



5.3.2 Waste Management Policy

Waste Management Units

Each subsidiary of the Group has established responsible units for controlling, disposing of, and reporting industrial waste generated from company operations, and **reports industrial waste in accordance with local regulations**. Waste disposal methods are all implemented according to local regulations.

Pan-International Group's Waste Management Responsible Units:

[Sustainability Committee]: The Chairman serves as the Chairperson, regularly discusses the implementation and planning of work related to disclosure and reduction, then reports the results to and reviews with the Board of Directors annually. Each subsidiary has its own management responsible unit.

Waste Disposal Method: The Company's Waste Is all Outsourced for Treatment

The Group records waste types, quantities, and tracks waste flow through **online forms, management systems, evidence-based estimates, and other methods,** and compiles annual waste generation using **actual measurement and estimation methods.** All waste is entrusted to qualified external waste treatment operators for transportation and disposal. After receiving the three-part transport form issued by the external transport operator, the quantity (weight) measured in the plant must be verified with consistency. Regular audits are conducted to ensure that the transport and treatment operators dispose of industrial waste in accordance with the Group's and local regulatory requirements.

Due to the nature of the industry, most of the Group's subsidiaries are in the assembly industry, so waste classification is relatively simple, with almost all being non-hazardous waste. Except for Honghuasheng, Yantai, which has a different industry (PCB plant) from other plants, other subsidiaries mainly have employee domestic waste as the largest category. Due to the technical or regulatory requirements, the plant cannot dispose of waste on-site. Therefore, all waste—whether hazardous or non-hazardous—is taken off-site and handled by qualified operators approved by the relevant authorities. Additionally, although Honghuasheng, Yantai generates a larger amount of hazardous waste, all waste from the entire plant (both hazardous and non-hazardous) is managed using full recycling and reuse methods.

Highlight: Honghuasheng, Yantai obtained the UL 2799 Zero Waste to Landfill Highest Level Platinum Certification with Yantai Industrial Park, Hongfujin, Hongfutai, Futaijin in 2023 (expected to obtain the factory's own certificate next year)

To achieve sustainable resource utilization and ensure proper waste treatment, each plant selects legally qualified waste disposal contractors in accordance with internal waste management procedure regulations. And, select contractors who can use "recycling and reuse" and "incineration (with energy recovery)" to replace "incineration (without energy recovery) and landfill" to ensure maximum resource utilization.

It is recommended to use recyclable and reusable materials in the plant to replace disposable materials. For example, using recyclable and reusable materials and packaging such as dry film cores, wood pulp boards, PE films, copper foils, aluminum sheets, film-coated aluminum sheets, aluminum alloys, and other recyclable and reusable packaging materials. This approach aims improve the recycling and reuse rates of materials and packaging. Regarding hazardous waste treatment, the types and quantities of hazardous waste substances are first reported to the environmental protection platform in compliance with regulations. Qualified contractors then come to the plant regularly to handle the treatment.

Our goal is to achieve a circular economy, transforming waste into valuable resources while reducing negative impacts on the environment. We believe that through cross-industry cooperation and global collaboration, we can achieve true waste management and sustainable development.

▼ Waste Management Responsible Units

Location	Waste Classification	Waste Storage	Waste Data Collection	Waste Reporting	Waste Treatment - Outsourced Treatment
Pan-International, Taipei	Administration Department / Materials Division	Administration Department / Materials Division	Administration Department / Materials Division	None	Administration Department / Materials Division
US Subsidiary	Finance	Finance	Finance	None	Finance
Dongguan Pan-International	Management Department	Management Department	Management Department	Management Department	Management Department
New Ocean Precision Component, Jiangxi	Engineering Department	Engineering Department	Engineering Department	Engineering Department	Engineering Department
Honghuasheng, Yantai	Waste Treatment Unit / General Affairs / Environmental Engineering	Waste Treatment Unit / General Affairs / Environmental Engineering	Waste Treatment Unit / General Affairs / Environmental Engineering	Waste Treatment Unit / General Affairs / Environmental Engineering	Waste Treatment Unit / General Affairs / Environmental Engineering
CJ Electric Systems, Wuhu	Management Department	Management Department	Management Department	Management Department	Management Department

▼ Waste Disposal Method

Location	Waste Recording Method	Waste Generation Measurement Method
Pan-International, Taipei	Third-party issued receipts	Load count analysis method; Weight volume method
US subsidiary (about 10 people in the office)	None	Evidence-based estimation
Dongguan Pan-International	Online forms; Management system; Handwritten weighing forms	Load count analysis method; Weight volume method; Material balance method; Evidence-based estimation
New Ocean Precision Component, Jiangxi	Online forms; Management system; Domestic waste estimation	Load count analysis method; Weight volume method; Material balance method; Evidence-based estimation
Honghuasheng, Yantai	Online forms; Management system; Domestic waste estimation	Load count analysis method; Weight volume method; Material balance method; Evidence-based estimation
CJ Electric Systems, Wuhu	Domestic waste estimation	Evidence-based estimation

5.3.3 Waste Transportation and Disposal

(GRI 306-3~306-5)

Overview of Waste Generation and Disposal Methods

In2023, the total waste generated by the Group's parent company, subsidiaries in mainland China, and the US subsidiarywas11,232.756tonnes, of which hazardous industrial waste was6,054.538tonnes, accounting for53.9%;5,178.218tonnes were non-hazardous industrial waste, accounting for46.1%.

The above data is affected by the hot spot waste - Honghuasheng, Yantai. Honghuasheng, Yantai is a PCB plant with a different industry from other plants. Excluding Honghuasheng, hazardous industrial waste was 2.738 tonnes, accounting for 0.24%; non-hazardous industrial waste was 1,141.898 tonnes, accounting for 99.76%.

This year's hazardous industrial waste volume (over 90% generated by Yantai) increased by about37.7%compared to2022. This increase is primarily due to Honghuasheng, Yantai's hazardous waste disposal contractor ceasing operations in 2022, resulting in some copper-containing waste (about 560 tonnes) generated in 2022 being disposed of in 2023.Essentially, there should have been a decrease in 2023. Despite this, the plant is still committed to increasing the recycling amount of hazardous waste, and uses the largest copper-containing waste for incineration treatment with energy recovery.

This year, the volume of non-hazardous industrial waste decreased by about 8.6% compared to2022. This reduction is mainly due to efforts to minimize the reduction of non-recyclable materials and actively seek recyclable materials to replace disposable materials, through reducing packaging, recycling packaging, reusing pallet, and reducing paper documentation by electronic means.

In addition to reducing waste at the source, Pan-International Group enhances the resource value of existing waste by adopting recycling methods. These methods focus on maximizing recycling in compliance with local regulations and feasible technologies, ensuring that waste resources are utilized as effectively as possible.

In2023, 13.5% of the Company's hazardous industrial waste and 63.5% of non-hazardous industrial waste were managed by recycling methods, accounting for 36.5% of the annual total waste.

▼ Industrial Waste Generation (Unit: Tonnes)

Items	Pan-International, Taipei (Parent Company)/Including the US Subsidiary Data in 2023			Dongguan Pan-International			New Ocean Precision Component, Jiangxi			Honghuasheng, Yantai			CJ Electric Systems, Wuhu			Total		
	2021	2022	2023	2021	2022	2023	2021	2022	2023	2021	2022	2023	2021	2022	2023	2021	2022	2023
Hazardous industrial waste	0.000	0.000	0.000	0.431	0.464	0.464	6.867	1.918	2.274	5,580.360	4,393.040	6,051.800	NA	0.131	0.000	5,587.658	4,395.552	6,054.538
Non-hazardous industrial waste	11.264	8.587	12.097	112.500	120.000	204.668	129.000	119.500	200.133	4,815.605	5,147.568	4,036.320	NA	270.000	725.000	5,068.369	5,665.655	5,178.218
Total amount	11.264	8.587	12.097	112.931	120.464	205.132	135.867	121.418	202.407	10,395.965	9,540.608	10,088.120	NA	270.131	725.000	10,656.027	10,061.207	11,232.756

Note: Due to calculation errors, the waste data for New Ocean Precision Component, Jiangxi and Honghuasheng, Yantai in 2021 and 2022 have been partially corrected (based on the 2023 report, with slight differences from the 2022 report)

Note: The classification of hazardous and non-hazardous waste is based on local regulations at each location.

Note: The Group acquired CJ Electric Systems, Wuhu in 2022, so there is no relevant information for 2021.

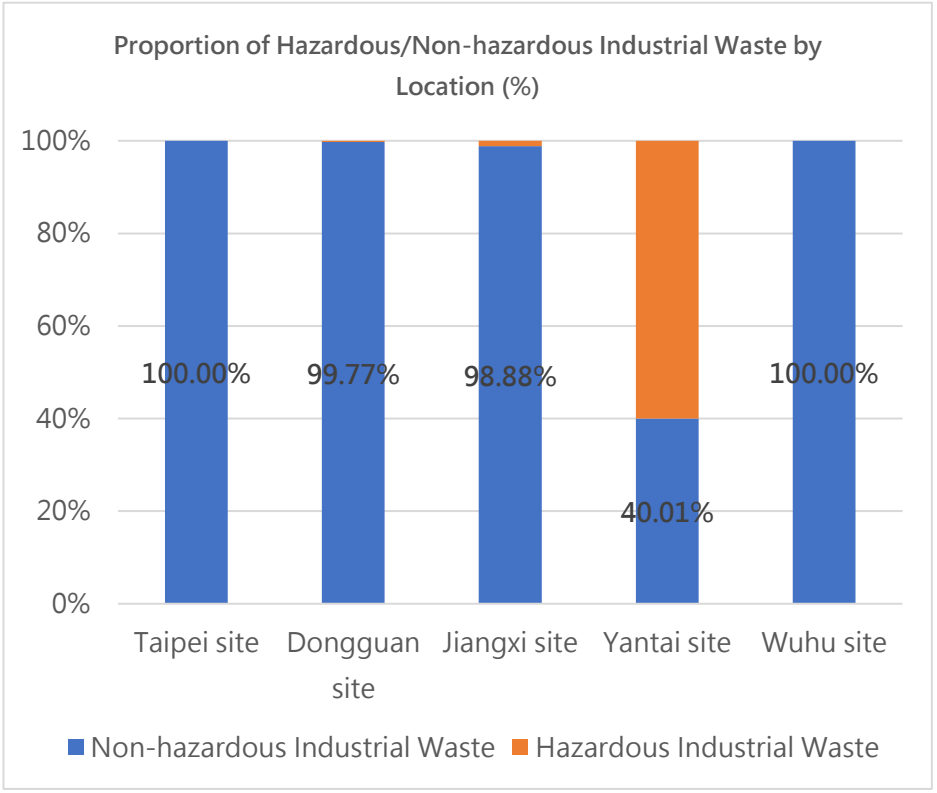
Note: In 2022, the amount of domestic waste generated by employees in Dongguan was not estimated, while in 2023, the amount of employee domestic waste was added.

Note: CJ Electric Systems, Wuhu expanded in 2023 (Dechan Plant area increased by 10,600 pings).

Note: From 2023, Pan-International, Taipei includes the data of US subsidiary.

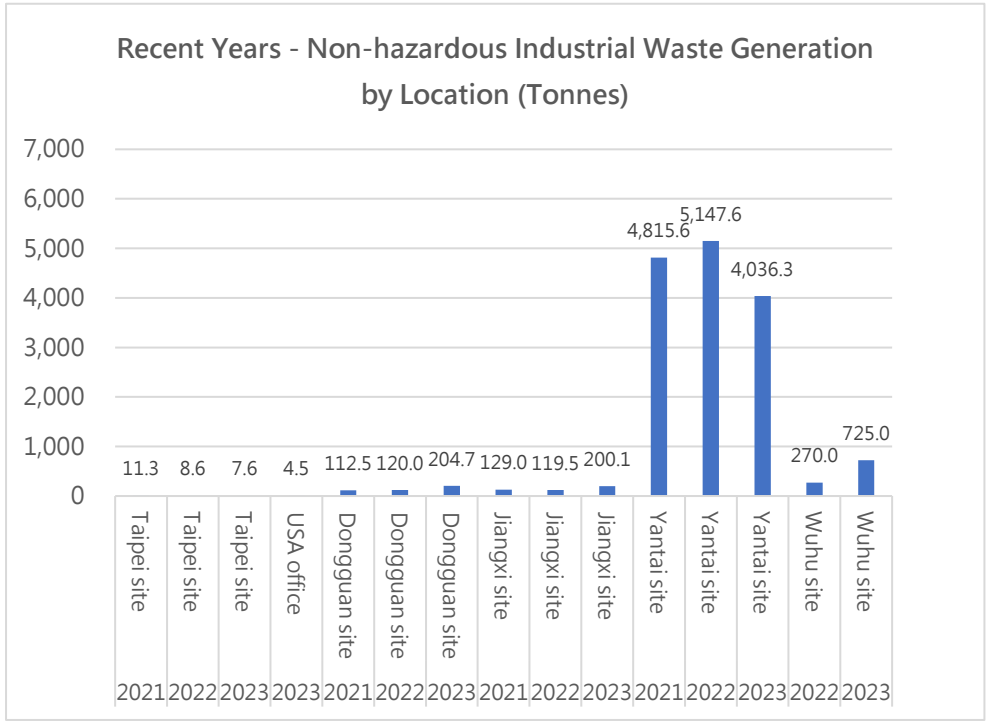
Note: In 2022, due to disposal contractor ceasing operations, the hazardous copper-containing waste generated in Honghuasheng, Yantai resulted in some hazardous waste (about 560 tonnes) that needed to be disposed in 2023.

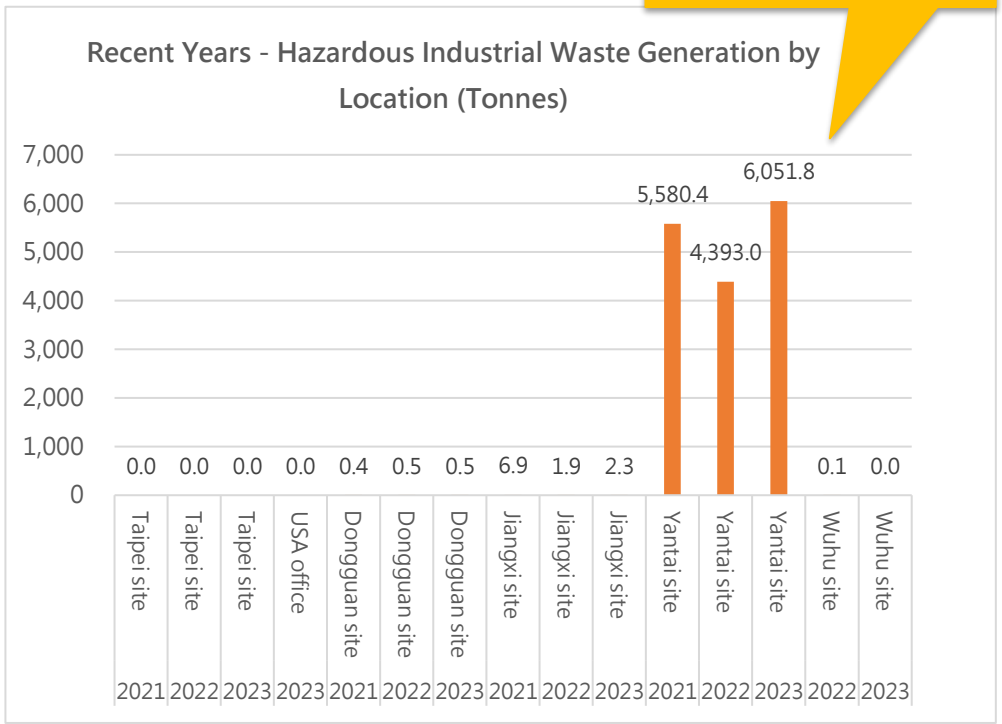
Proportion of Hazardous/Non-hazardous Industrial Waste by Location (%)		
Plant	Non-hazardous industrial waste	Hazardous industrial waste
1.Pan-International, Taipei	100.00 %	0.00 %
2.Dongguan Pan-International	99.77 %	0.23 %
3.New Ocean Precision Component, Jiangxi	98.88 %	1.12 %
4.Honghuasheng, Yantai	40.0 1%	59.99 %
5.CJ Electric Systems, Wuhu	100.00 %	0.00 %



As shown in the figure below, we achieved positive results in terms of hazardous and non-hazardous waste in 2023. Within the current boundary of the Group, almost all plants maintained a downward trend. This demonstrates our efforts and progress. Pan-International Group will continue to firmly implement waste reduction policies. We aim to gradually achieve the goal of zero waste.

Third-party disposal site issue: About 560 tonnes of hazardous waste in 2022 was delayed for disposal until 2023





• Industrial Waste Disposal Transfer Explanation

The Company's waste treated by recycling methods mainly includes **non-hazardous waste such as waste wood, waste metal, waste packaging materials, as well as hazardous waste like edge materials, waste metals.** The recycling methods primarily involve **preparation for reuse, recycling, and other recycling operations.** In**2023**, a total of 4,100.112 tonnes of waste were transferred for disposal, **all of which were outsourced to third parties for disposal.**

▼ Waste Transferred from Disposal by Recycling Operations (Unit: Tonnes)

Items	Disposal Transfer Method	Pan-International, Taipei (Parent Company) and the US Subsidiary/Including the US Subsidiary Data in 2023			Dongguan Pan-International			New Ocean Precision Component, Jiangxi			Honghuasheng, Yantai			CJ Electric Systems, Wuhu			Total		
		2021	2022	2023	2021	2022	2023	2021	2022	2023	2021	2022	2023	2021	2022	2023	2021	2022	2023
Hazardous industrial waste	Preparation for Reuse	0.000	0.000	0.000	0.000	0.000	0.127	0.000	0.000	1.691	0.000	0.000	0.000	NA	0.000	0.000	0.000	0.000	1.818
	Recycling	0.000	0.000	0.000	0.431	0.464	0.000	0.000	0.000	0.566	753.620	666.180	812.080	NA	0.000	0.000	754.051	666.644	812.646
	Other recycling operations	0.000	0.000	0.000	0.000	0.000	0.000	5.194	1.833	0.000	0.000	0.000	0.000	NA	0.131	0.000	5.194	1.964	0.000
	Total amount	0.000	0.000	0.000	0.431	0.464	0.127	5.194	1.833	2.257	753.620	666.180	812.080	NA	0.131	0.000	759.245	668.608	814.464
Non-hazardous industrial waste	Preparation for Reuse	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	NA	0.000	0.000	0.000	0.000	0.000
	Recycling	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	190.240	0.000	0.000	2315.180	NA	0.000	0.000	0.000	0.000	2505.420
	Other recycling operations	0.000	0.000	0.000	0.000	0.000	152.828	6.000	5.000	0.000	3524.412	3788.418	602.400	NA	0.000	25.000	3530.412	3793.418	780.228
	Total amount	0.000	0.000	0.000	0.000	0.000	152.828	6.000	5.000	190.240	3524.412	3788.418	2917.580	NA	0.000	25.000	3530.412	3793.418	3285.648

Note: The Group acquired CJ Electric Systems, Wuhu in 2022, so there is no relevant information for 2021.
Note: In 2022, the amount of domestic waste generated by employees in Dongguan was not estimated, while in 2023, the amount of employee domestic waste was added.
Note: CJ Electric Systems, Wuhu expanded in 2023 (Dechan Plant area increased by 10,600 pings).
Note: From 2023, Pan-International, Taipei includes the data of US subsidiary.

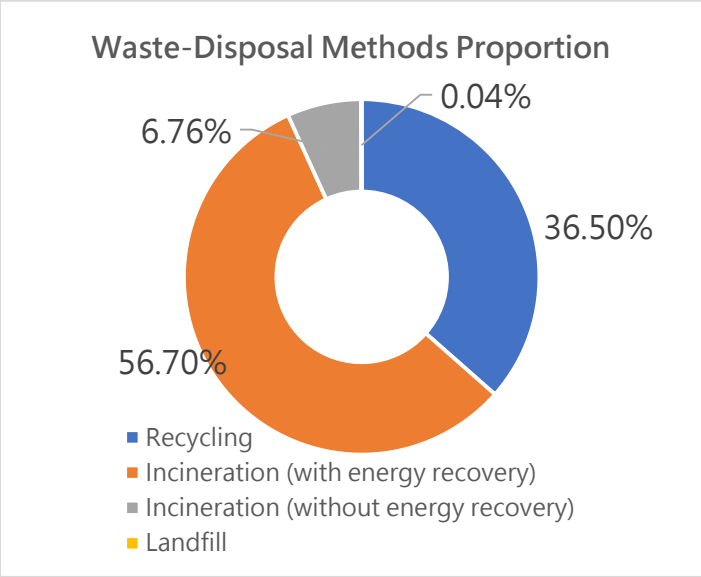
• Industrial Waste Direct Disposal Explanation

▼ Waste Directly Disposed of by Disposal Operations (Unit: Tonnes)

Items	Direct Disposal Method	Pan-International, Taipei (Parent Company)/Including the US Subsidiary Data in 2023			Dongguan Pan-International			New Ocean Precision Component, Jiangxi			Honghuasheng, Yantai			CJ Electric Systems, Wuhu			Total		
		2021	2022	2023	2021	2022	2023	2021	2022	2023	2021	2022	2023	2021	2022	2023	2021	2022	2023
Hazardous industrial waste	Incineration (with energy recovery)	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.017	4,826.740	3,726.860	5,239.720	NA	0.000	0.000	4,826.740	3,726.860	**5,239.737**
	Incineration (without energy recovery)	0.000	0.000	0.000	0.000	0.000	0.337	1.673	0.084	0.000	0.000	0.000	0.000	NA	0.000	0.000	1.673	0.084	**0.337**
	Landfill	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	NA	0.000	0.000	0.000	0.000	**0.000**
	Total amount	0.000	0.000	0.000	0.000	0.000	0.337	1.673	0.084	0.017	4,826.740	3,726.860	5,239.720	NA	0.000	0.000	4,828.413	3,726.944	**5,240.074**
Non-hazardous industrial waste	Incineration (with energy recovery)	0.000	0.000	0.000	0.000	0.000	0.000	9.000	8.000	9.893	0.000	0.000	1,118.740	NA	0.000	0.000	9.000	8.000	**1,128.633**
	Incineration (without energy recovery)	11.264	8.587	7.627	112.500	120.000	51.840	0.000	0.000	0.000	1,291.193	1,359.150	0.000	NA	270.000	700.000	1,414.957	1,757.737	**759.467**
	Landfill	0.000	0.000	4.470	0.000	0.000	0.000	12.000	10.000	0.000	0.000	0.000	0.000	NA	0.000	0.000	12.000	10.000	**4.470**
	Other Direct Treatment	0.000	0.000	0.000	0.000	0.000	0.000	102.000	96.500	0.000	0.000	0.000	0.000	NA	0.000	0.000	102.000	96.500	**0.000**
	Total amount	11.264	8.587	12.097	112.500	120.000	51.840	123.000	114.500	9.893	1,291.193	1,359.150	1,118.740	NA	270.000	700.000	1,537.957	1,872.237	**1,892.570**

Note: The Group acquired CJ Electric Systems, Wuhu in 2022, so there is no relevant information for 2021.
Note: In 2022, the amount of domestic waste generated by employees in Dongguan was not estimated, while in 2023, the amount of employee domestic waste was added.
Note: CJ Electric Systems, Wuhu expanded in 2023 (Dechan Plant area increased by 10,600 pings).
Note: From 2023, Pan-International, Taipei includes the data of US subsidiary.
Note: Due to calculation errors, the waste data for New Ocean Precision Component, Jiangxi and Honghuasheng, Yantai in 2021 and 2022 have been partially corrected (based on the 2023 report, with slight differences from the 2022 report)

In addition to the above waste, the remaining waste is directly disposed of by incineration or landfill methods. In **2023**, a total of **7,132.644** tonnes of waste were directly disposed of by the Company, **all of which were outsourced to third parties for disposal. It is worth noting that in 2023, New Ocean Precision Component, Jiangxi and Honghuasheng, Yantai changed the incineration without energy recovery to incineration with energy recovery, to generate heat that can be reused during the waste treatment process.**



5.4 Air Quality

(GRI 305-7)

The Group's Pan-International, Taipei, Dongguan Pan-International, New Ocean Precision Component, Jiangxi, CJ Electric Systems, Wuhu, and US subsidiary, are categorized as office environments and simple electronic assembly plants, which do not produce air pollutants. Only the subsidiary Honghuasheng, Yantai produces some air pollutants in the manufacturing process due to its different industry - PCB plant, including:

- Nitrogen oxides and sulfur oxides: Generated by natural gas boilers, these emissions are untreated but comply with direct discharge standards.

- VOCs: Primarily discharged from waste gas scrubber used in processes involving inks (such as inner layer or solder resist ink printing and ink baking lines).

To track and control air pollutant emissions in the plant, in addition to installing relevant prevention equipment, Honghuasheng, Yantai conducts gas testing at emission outlets in the plant through third-party testing and certain automatic online monitoring every six months/annually/others according to different items, ensuring that the generated air pollutants all comply with government regulations/environmental impact assessment commitments.

▼ **Honghuasheng, Yantai - Air Pollution Prevention Equipment and Treatment Ef**

Air Pollutant Name	Prevention Equipment	Treatment Efficiency (%)
Nitrogen oxides (NOx)	Direct discharge	Meets direct discharge standards
Sulfur oxides (SOx)	Direct discharge	Meets direct discharge standards
Volatile organic compounds (VOC)	Activated carbon adsorption treatment process & water spray scrubbing	Activated carbon treatment efficiency: 90%

▼ Honghuasheng, Yantai - Air Pollutant Emission Concentration Test

Major Gas	Actual Tested Emission Concentration **(Unit)**	Emission Standard **(Unit)**
Nitrogen oxides (NOx)	40 mg/m³	100 mg/m³
Sulfur oxides (SOx)	17.5 mg/m³	50 mg/m³
Volatile organic compounds (VOC)	1.92 mg/m³	50 mg/m³

Note 1: This table shows the average values of regular testing in 2023
Note 2: Emission standards comply with government regulations/environmental impact assessment commitments/air pollution operating permit

In 2023, Honghuasheng, Yantai emitted 391 kg of nitrogen oxides (NOx), 166 kg of sulfur oxides (SOx), and 933 kg of volatile organic compounds (VOC). No persistent organic pollutants (POP), hazardous air pollutants (HAP), particulate matter (PM), or other major gases currently regulated were produced.

- VOC emissions are fluctuating and difficult to measure precisely. VOC is mainly calculated by the concentration at the time of detection × total exhaust volume, so the concentration at the time of detection will affect the total amount. Honghuasheng continues to strives to treat and discharge VOCs in a manner that exceeds government regulations/environmental impact assessment commitments.

- The emissions of nitrogen oxides and sulfur oxides in 2023 decreased compared to 2022 and 2021, primarily due to (1) the replacement of the pressing boiler in Plant A2 with a new type of boiler (reducing emissions) and (2) the removal of one steam humidification boiler.

▼ **Honghuasheng, Yantai Air Pollutant Emissions Over the Years** (Unit: kg)

Items	2021	2022	2023
Nitrogen oxides (NOx)	712	754.8	391
Sulfur oxides (SOx)	292.21	269.6	166
Volatile organic compounds (VOC)	961.76	813.82	933

Note 1: Measurement method explanation: Emissions are monitored emission concentrations.
Note 2: Coefficient source: There is no coefficient for monitoring emission concentrations.
Note 3: VOC is calculated based on the concentration at the time of detection × total exhaust volume