3. Create Friendly Environments

3.1 Eco-friendly Management

Environmental protection and pollution prevention form an integral part of our corporate management strategy. Since June 1998, TTC has implemented the ISO 14001 Environmental Management System, providing a robust framework for environmental protection across all our plants. This approach not only controls and minimizes our environmental impact but also prevents accidents that might harm the environment, ensuring compliance with relevant regulations.

We have integrated the environmental management system with our occupational health and safety system, establishing a comprehensive environmental, health, and safety (EHS) policy. Regular EHS training sessions are conducted to cultivate a safe and healthy working environment.

TTC's Environmental, Health, and Safety Policy: Corporate Promise

- Firm commitment to compliance with governmental regulations
- Fulfill Corporate Social Responsibility
- Effective implementation of management cycles
- Preventative measures to mitigate hazards and reduce risks
- Emphasis on the concept of responsible care
- Prioritizing the needs of employees and the public
- Continuous improvement to enhance performance
- Ensuring sustainable business operations

Certificate TW04/00550

The management system of

TAITA CHEMICAL CO., LTD.

No.571, Min Zu Road, Tou Fen City, Miao Li County 351, Taiwan

has been assessed and certified as meeting the requirements of
ISO 14001:2015

For the following activities
Lin Yuan Plant:
Design and manufacture of acrylonitrile butadiene styrene resin, and styrene acrylonitrile resin.
Chien Chen Plant:
Design and manufacture of general purpose, high/medium impact and expandable polystyrene.
Tou Fen Plant:
Manufacture of glass wool insulation material (blanket, board, ceiling panel, green wool, white wool).

This certificate is valid from 14 October 2022 until 14 October 2025 and remains valid subject to satisfactory surveillance audits.
Issue 10. Certified since 01 September 1998.
Multiple certificates have been issued for this scope, the main certificate is numbered TW04/00550
Certified activities performed by additional sites are listed on subsequent pages.

Authorised by

SGS United Kingdom Ltd
Rossmore Business Park, Ellesmere Port, Cheshire, CH65 3EN, UK
t +44 (0)151 350-6666 - www.sgs.com

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Depending on the importance of our products, TTC evaluates its production processes in terms of hazardous substance management, pollution prevention, energy conservation, water saving, and carbon reduction. The objective is to achieve high safety standards and low pollution in production. Moreover, we set our environmental goals and targets, and devise management plans or other improvement measures. These initiatives are continually implemented, reviewed, and monitored to ensure best practices are consistently followed.

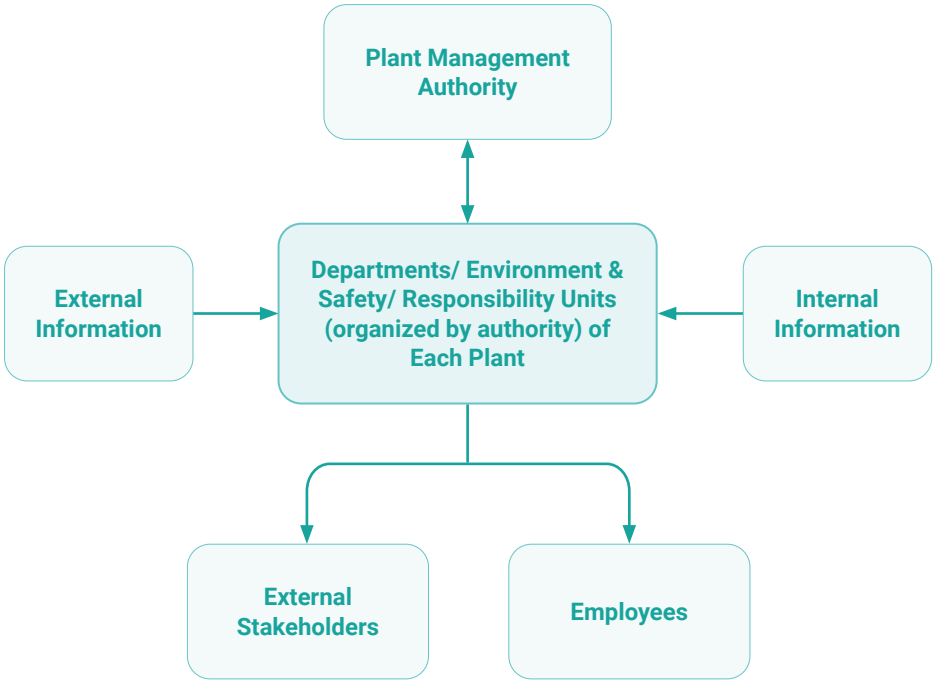
3.1.1. Environmental Management Organization

To effectively implement the environmental, health, and safety (EHS) management system and promote EHS awareness among employees, we have established the EHS Management Committee. The CEO serves as the chairman of this committee, and under its umbrella, there are EHS management sub-committees established at each plant. The EHS Management Committee convenes a management review meeting at least once a year. Meanwhile, the management sub-committees in each plant hold an occupational safety and health committee meeting at least once every three months and an EHS execution team meeting every two months. These meetings are dedicated to regular discussions and reviews of topics related to environmental, health, and safety issues.

3.1.2. ESH Grievance Channels

GRI 2-25

The TTC has established, implemented, and maintained the "Operation Regulations for Occupational Safety, Health and Environment Information Collection and Communication" as channels and procedures for the communication, engagement, and consultation of environment-related topics for internal stakeholders (employees, employee welfare committee, labor/ management meetings, occupational safety and health committee meetings) as well as external stakeholders (customers, suppliers, ESH competent authorities, community residents, and environmental groups).



Internal Complaint and Communication Procedures

1. Internal Complaint and Communication Procedures * Employees can consult and communicate on occupational safety, health, and environmental matters through channels such as the Occupational Safety and Health Committee meetings, Environmental and Safety meetings, and the employee complaint mailbox.
2. When employees have suggestions related to occupational safety, health, or environmental issues, they can also follow the proposal improvement system procedure.
3. If employees have complaints about occupational safety, health, or environmental concerns, they can address them through the administrative system or directly approach the Environment & Safety unit.

External Complaint and Communication Procedures

1. After receiving an HSE grievance from outside the organization over the phone (07-7040988), orally or in writing, TTC will refer the case to the responsible unit to verify the contents of the grievance and register it in the "Occupational Safety, Health and Environment Information Collection and Communication Form." After a case has been confirmed, a proper response will be made.
2. Information related to the EHS policy is available on the company's website for public access and consultation.

3.1.3. Environmental Investment

In 2023, the environmental expenditure of TTC totaled NT$122.1 million, a 39.1% decrease from 2022. The primary reason for this reduction is due to most of the environmental improvement projects being concentrated in 2022. Additionally, there are two ongoing environmental improvement projects at the Zhongshan plant, a wastewater treatment plant for water reuse and the construction of a safety risk intelligent control platform that have not yet been completed. The finalization of associated costs, approximately NT$35.21 million, for these projects will be deferred to the end of 2024. The expenditure categories associated with TTC's environmental management are as follows:

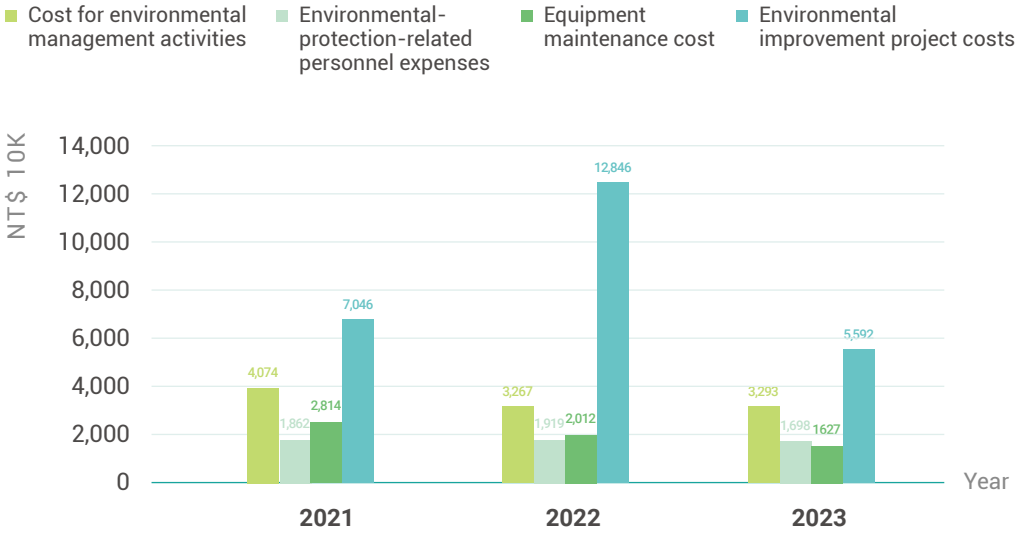
Environmental Management Expenditure Overview Table for the Last Three Years

Unit: NT$ 10K

Category	2021	2022	2023
Cost for environmental management activities	4,074	3,267	3,293
Environmental-protection-related personnel expenses	1,862	1,919	1,698
Equipment maintenance cost	2,814	2,012	1,627
Environmental improvement project costs	7,046	12,846	5,592
Total	15,796	20,043	12,210

Note 1: Environmental Management Activity Costs: Includes costs related to air pollution control, water pollution control, waste disposal, noise control, and others (e.g., air pollution control expenses, soil and groundwater pollution control expenses, maintenance costs for setting up air quality monitoring facilities in the Linyuan Industrial Zone, etc.).
Note 2: Environmental-protection-related personnel expenses include personnel expenses and environmental protection-related training fees.
Note 3: Equipment Operation & Maintenance Costs: Encompasses expenses associated with the operation, maintenance, and upkeep of equipment for environmental protection and control.
Note 4: Environmental Improvement Project Costs: Covers the expenditure for projects related to environmental enhancements.

Environmental Management Expenditure Distribution for the Last Three Years



3.2 Climate Change and Energy Management

GRI 201(201-2), GRI 3-3, GRI 302 (302-1, 302-3, 302-4), GRI 305 (305-1, 305-2, 305-3, 305-4, 305-5)

Material Topic Climate Change and Energy Management

Impact Scope Government agencies, partners, community, and employees

Material Reason The global average temperature is on the rise due to climate change. This is closely linked to energy consumption. As TTC operates within an energy-intensive industry, the energy efficiency of our production processes is a primary focus. In addition to proactive management within our facilities, we continue to implement energy-saving and carbon-reducing measures. This is especially crucial as government agencies are stepping up their oversight of carbon emissions, preparing us to handle potential future impacts.

Alignment with Sustainability Principles and SDGs Create a Friendly Environment/ SDGs 13 Climate Action

Management approaches	Policy Purpose	Reduce the environmental impact of energy and greenhouse gas emissions, meeting both national regulatory requirements for reductions and the group's energy-saving and carbon reduction targets. With 2017 as the benchmark year, we have set short-, medium-, and long-term reduction goals. Benchmark Year: The year 2017 is chosen as the reference because it reflects a period where most of our plants operated at optimal capacity utilization.			
	Objective	2023 Goals 1. Reduce energy consumption per unit product by 3% 2. Greenhouse gas emissions reduced by 7.16% compared to the base year	Short-term Goals in 2024 1. Reduce energy consumption per unit product by 3% 2. Greenhouse gas emissions reduced by 9% compared to the base year	Medium-term Goals in 2030 1. Reduce energy consumption per unit product by 5% 2. Greenhouse gas emissions reduced by 27% compared to the base year	Long-term Goals Carbon neutrality by 2050
	Management Plan	1. Introduce or update equipment to decrease energy consumption. 2. Strictly monitor energy consumption in the plant. If anomalies arise, carry out maintenance or update equipment accordingly.			
	Evaluation of the Management	"Energy consumption per unit product" and "annual reduction rate of greenhouse gas emissions" are set as key performance indicators. An evaluation report is presented to the management, and a review meeting is held annually to assess the performance of the previous year. This helps in proposing improvement measures and verifying their effectiveness.			
	Assessment Mechanism	1. Conduct monthly statistical analysis on energy consumption to systematically understand the reasons for any increases or decreases. 2. Establish monitoring, testing equipment, and forecasting methods to observe plant energy consumption and control and eliminate anomalies in real-time. 3. Continuously implement the ISO 14064-1 greenhouse gas verification system to systematically survey greenhouse gas emission situations and periodically review various energy-saving and carbon-reducing plans. 4. Persistently carry out the ISO 50001 energy management system to manage energy wastage systematically.			
	Assessment Result	1. Energy consumption per unit product 2. GHG emissions			
	Negative Impact Remedies and Preventive Measures	In case of power shortages leading to production interruptions: Plans have been made to install generators to ensure backup power is available during power outages.			
	Policy Adjustment	Proposals for improvements concerning unmet targets are presented and reviewed during management review meetings.			
	Grievance Mechanism	Details can be found in Section 3.1.2 under the Environmental, Safety, and Health Complaint Channel.			

Status and description for goal achievement

Management Plan	2023 Goals	2023 Achievements	Explanation (including reasons for non-achievement)
Review and Follow-up of Energy-saving and Carbon Reduction Management Plan	Reduce energy consumption by 3%	Reduce energy consumption by 4.33%	✓ The goal has been achieved
	Greenhouse gas emissions reduced by 7.16% compared to the base year	In 2023, greenhouse gas emissions amounted to 65,432 tons, which is a 17.9% reduction compared to the benchmark year	✓ The goal has been achieved

3.2.1. Climate Change

Climate Change Risk management

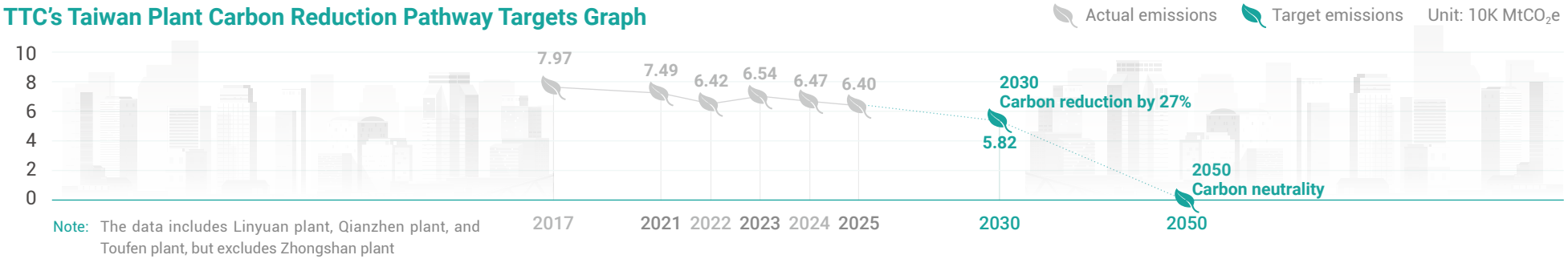
Climate change is a common challenge around the world. To keep up with the world and match the demand for sustainable development, Taiwan announced that the "Greenhouse Gas Reduction and Management Act" has been amended to the "Climate Change Response Act" on February 15, 2023.

Facing the impact of climate change, carbon reduction has become a global goal. To enhance carbon reduction, USIG set the 2030 carbon reduction target which is "carbon reduction by 27% over 2017 by 2030" in early 2022 and set "Carbon neutrality by 2050" in 2023 as the Long-term Goals of the Corporation.

In order to achieve the corporate sustainability vision, USIG has actively implemented corresponding response strategies and management mechanisms with practical actions. The group's domestic plants continue to implement ISO 14064-1 GHG Inventory and Verification, and plan and implement carbon reduction programs. The group also actively develops external renewable energy sites. By the end of 2023, the accumulative on-grid capacity of solar PV sites has reached 7.2MW.

TTC plans its carbon reduction pathway according to the group's 2050 carbon reduction goals. As of 2023, GHG emissions amounted to 65,432MtCO_2e, which have reduced by 17.9% compared to the base year (2017). However, due to an increase in production capacity at the Qianzhen plant by approximately 2,200 tons, the GHG emissions were 2% higher than in 2022. We will implement the energy-saving and carbon reducing schemes more actively in the future. The medium-term carbon reduction strategy will proceed towards the transition to low-carbon energy, enhancement of energy efficiency, intelligent monitoring, and the setup and use of renewable energy. The long-term carbon reduction strategy will continuously focus on low-carbon fuels, carbon capture, reuse technology, and negative carbon emissions technology, to implement the carbon neutrality goals and promote sustainable development.

TTC's Taiwan Plant Carbon Reduction Pathway Targets Graph



Note: The data includes Linyuan plant, Qianzhen plant, and Toufen plant, but excludes Zhongshan plant

At TTC, the ESG Committee is the highest governance body of climate management under the Board of Directors. Chaired by independent directors, the committee reviews the Company's climate change strategies and targets every year, manages the actions and reviews the performance in climate change risks and opportunities, and reports to the Board. TTC based on the framework recommended by the Task Force on Climate-related Financial Disclosures (TCFD), we identify climate-related risks and opportunities, assess risks and opportunities from different departments, assess financial impacts and set responsive plans, plan overall assessment every three years, and review updates every year.

Climate Change Management Framework

Type	Management Strategy and Action
Governance	• ESG Committee: As the highest governance body of climate change management chaired by independent directors, it reports climate change planning, implementation and performance to the Board every year. • Operations Management Meeting: Chaired by the Board chairman, it plans and implements material policies for energy conservation and carbon reduction and reports the results from time to time. • Division of Equipment Preventive Maintenance and Environmental Risk Control Quarterly Meeting: As the highest governance body of the Group's energy management, it reports the planning and progress to the Group's chairman each quarter and makes decisions on energy management. • Group Green Power Team: As the Group's responsible unit for green power promotion, it reports the status of and future plans for green power development of the chairperson.
Strategy	• Identification of risks and opportunities: Identify material risks and opportunities based on their likelihood and impact. • Assessment of risks and opportunities: Assess the potential financial impacts of identified material risks and opportunities. • Scenario analysis: Set plans to achieve net zero emissions in different scenarios.
Risk Management	• Implementation of TCFD: Identify risks and opportunities based on the TCFD recommended framework, communicate with all responsible units, and confirm by senior management. • Report of identification results: Include them in the annual risk assessment. The president reports the control measures and management performance to the Audit Committee and Board every year.
Indicators and Targets	• Set energy management targets within the group's carbon reduction initiative, with 2017 as the base year, aiming for a 27% reduction goal by 2030, and achieving carbon neutrality by 2050 • Climate-Related Response Strategy: Equipment replacement, construction of renewables facilities, optimization of production scheduling, planning building aircon, energy management system, extreme weather events contingency plans • GHG emissions disclosure: Disclose the data of Scopes 1, 2, and 3 GHG emissions in the ESG report yearly

Identification of Climate Risks and Opportunities

In response to intensifying global climate change, TTC continues to adopt TCFD framework to deepen the understanding of potential risk items that may be faced under extreme climate conditions, and capture new business opportunities. Referencing the Taiwan Climate Change Projection Information and Adaptation Knowledge Platform (TCCIP) and the National Science and Technology Center for Disaster Reduction, analyze the projected changes in temperature, rainfall, flooding, and drought from 2016 to 2035 under the RCP 8.5 scenario and identify three physical risk issues. Also, identified nine transition risks and 12 opportunity issues, totaling 24 potential risk and opportunity issues, based on the group's strategy, industry characteristics, Intended Nationally Determined Contribution (INDC), and TCFD indicators.

In 2023, we conducted a survey for the ESG Committee and senior unit managers to assess the relevance of each risk to the Company's operations and the duration of potential impacts, as well as the development and viability of each opportunity. We collected 10 responses in total. After statistical analysis by the group, we identified 11 materiality climate issues (1 items of physical risk, 5 items of transition risk, and 5 items of opportunity).

TTC evaluates potential financial impacts from 11 materiality risk and opportunity items, devises corresponding strategies, and establishes management mechanisms. The aim is to understand the potential effects of climate change across various aspects, reduce operational disruptions caused by extreme weather events and foster a resilient climate change culture.

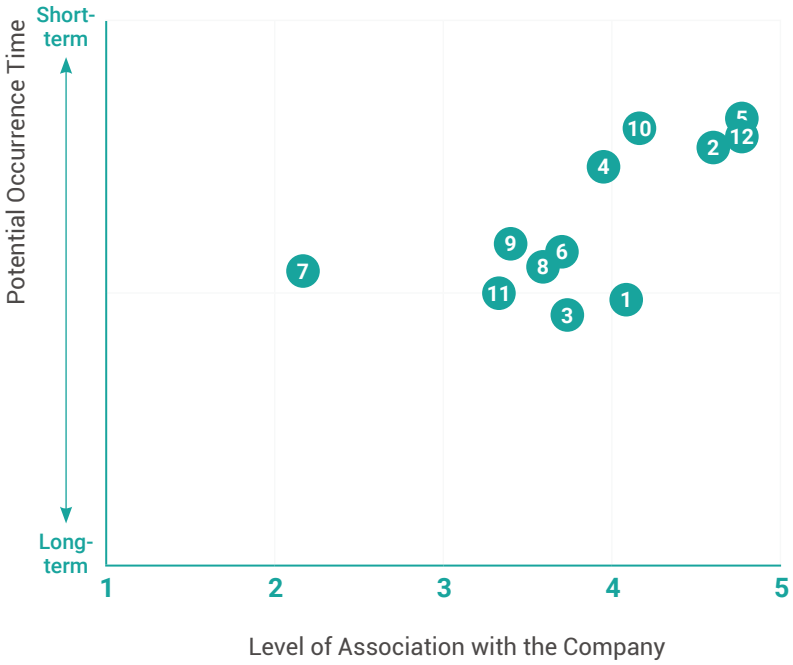
The climate change risks and opportunities by the identified duration are tabulated below:

Type	Item	Duration
Physical Risk	• Drought	Short-term (<3 years)
Transition Risk	• Government regulation or supervision - Levy of water conservation • Carbon fee • Renewable energy regulations - risk of energy-heavy industries clause • Transition of low-carbon technology • Increased raw materials price	Short-term (<3 years)

Type	Item	Developmental	Technical Feasibility
Opportunity	High-efficiency production	Progressive and aligned with the existing policies of the company	Expanding development
	Recycling and reuse - Circular Economy	Progressive and aligned with the existing policies of the company	Expanding development
	Reduce water use and water consumption	Progressive and aligned with the existing policies of the company	Matured
	Use low-carbon energy	Progressive and aligned with the existing policies of the company	Matured
	R&D and innovation of new products and services - research and development of low-carbon and energy-saving products	Progressive and aligned with the existing policies of the company	Expanding development

Overview Table of Short, Medium, and Long-term Climate Change Risks and Opportunities Type

Climate Change Opportunity Matrix



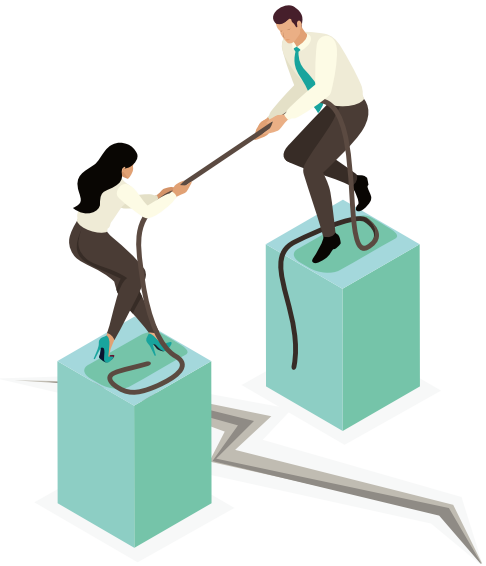
Opportunity

Item	Opportunity Topics	Developmental Impact on Company Operations	Feasibility of Executing Company Operations
1	Adoption of Higher Efficient Transportation Methods	3.23	3.14
2	Use of Higher Efficient Production and Distribution Processes	4.98	3.95
3	Recycling and Reuse	4.77	3.94
4	Transition to Higher Efficient Buildings	3.73	3.85
5	Reduce Water Use and Water Consumption	4.88	4.26
6	Use Low-carbon Energy	4.89	4.27
7	Use New Technology	2.80	2.60
8	Participation in Carbon Trade	3.43	3.12
9	Develop and/or Increase Low-carbon Products and Services	3.85	3.86
10	R&D and Innovation of New Products and Services	4.57	4.06
11	Enter New Markets	4.47	3.85
12	Utilize Public Sector Incentives Regulations	4.57	3.94

Climate Change Risk Matrix

Risk

Item	Risk Topics	Level of Association with the Company	Potential Occurrence Time
1	Flood Inundation	4.06	1.99
2	Drought	4.59	2.62
3	High Temperature	3.75	1.87
4	Government Regulation or Supervision	3.97	2.52
5	Carbon Tax/Fee	4.70	2.82
6	Product Efficiency Regulations and Standards	3.76	2.28
7	Renewable Energy Regulations	4.70	2.72
8	Changes in Customer Preferences	3.65	2.19
9	Credit Risk	3.46	2.31
10	Transition of Low-carbon Technology	4.17	2.72
11	Uncertainty of Market Information	3.35	1.99
12	Changes in Raw Materials Price	4.69	2.72



Promote Group Internal Carbon Pricing

In February 2023, Taiwan announced the implementation of the "Climate Change Response Act", which introduced a mechanism for collecting carbon fees. Details concerning the fee collection methods and specific rates would be stipulated by the Ministry of Environment through related regulations. Targets would be subject to charges based on hierarchy, beginning with major ones followed by minor targets in different stages. The rates will be reviewed regularly and gradually increased. In order to respond to government policies in advance and effectively cope with climate change and reducing carbon risk, USIG will introduce an internal carbon pricing system in 2024. The price will be based on the domestic carbon fee pricing basis. We plan to integrate this system into the Company's decision-making and investment evaluation processes, assessing the impact of carbon emissions on business operations, and accelerating the implementation of carbon reduction measures. The Group will also hold two educational training sessions to help relevant unit employees understand the concept and application of internal carbon pricing, assist each plant in prompt implementation, and also plan for a general course on carbon-related topics. Invite all group employees to participate in order to enhance everyone's carbon reduction awareness and achieve our Sustainable Development Goals.

Overview Table of Potential Financial Impact of Risks and Opportunities and Countermeasures

Type	Climate Related Risk	Potential Financial Risk	Company Description	Countermeasures
Physical Risk	Drought	Increase in operating costs	• If there is a water shortage, it is necessary to outsource water trucks. In severe cases, production lines will be reduced or completely halted, with an estimated increase in the cost of purified water by NT$24,000 per day.	• Monitor water conditions and establish emergency response procedures • Stop non-essential water use, and strengthen inspections of pipelines and switches • Implement water improvement measures to reduce total water withdrawal annually
Transition Risk	Levy of water conservation	Increase in operating costs	• Based on TTC's actual water usage and water recycling rate from November 2022 to April 2023 during the dry spell, the estimated water conservation charge is NT$150,000 per year	• Set targets for water consumption per unit product and achieve reduction goals annually. • Improve the wastewater recycling system and strengthen operational management to increase the volume of recycled water and reduce water consumption
	Carbon fee	Upfront costs were high, while later carbon emissions were low and operating costs were reduced	• Based on TTC's estimated carbon emissions for 2023, assuming a carbon fee of NT$300 per metric ton, the projected carbon fee would be NT$2.83 million per year.	• Incorporate carbon costs into investment assessments to increase the execution opportunities of carbon reduction items • Upgrade and replace outdated equipment within the plant to improve energy efficiency
	Risk of energy-heavy industries clause	Increase in operating costs	• TTC has installed solar PV equipment on the rooftop and plans to purchase green electricity with USI Green Energy Corporation to meet regulatory requirements.	• USI Green Energy Corporation, a subsidiary of USIG, actively seeks suitable sites for green electricity development. The cumulative capacity of installed solar photovoltaic reached 7.2MW in 2023, with an annual electricity generation of up to 9.15 million kWh. TTC estimates to purchase 825,000 kWh of green electricity from USI Green Energy Corporation • Due to the electricity price increase by Taiwan Power Company in April 2024, the estimated electricity expenditure is expected to increase by NT$23.97 million per year. TTC will actively invest in low-carbon technologies to mitigate the impact of electricity price hike.
	Transition of low-carbon technology	Increased capital expenditure and decreased in operating costs	• In 2023, TTC invested NT$45.78 million in updating energy-saving equipment, which is estimated to saved 3.79 million kWh of power and reduced carbon emissions by 1,874tCO2e	• Implemented 32 energy-saving and carbon reduction measures in 2023, with an estimated power saving of 3.79 million kWh
	Increased raw materials price	Increase in operating costs	• Under the consideration of future carbon tax levies, the raw material will include the cost of carbon emissions, leading to a rise in prices.	• Continue to promote the recycling and reuse of secondary materials • Evaluate the feasibility of implement AI intelligence scheduling systems within the plant
Opportunity	High-efficiency production	Increased capital expenditure and decreased in operating costs	• Increase production through proper equipment maintenance and operational optimization to improve the energy efficiency per unit product and reduce greenhouse gas emissions	• TTC invested NT$20.61 million in 2023 to enhance overall production efficiency, and have reduced carbon of 520tCO2e in result.
	Recycling and reuse - Circular Economy	Increase in revenue	• Glass wool raw materials are procured by recycling waste glass for use in production processes	• Research and development focused on sustainable products, transforming waste glass into fire-resistant, thermal-insulating, and soundproofing fiberglass. These products have obtained the Green Building Material Label. • Recover product powder from the wastewater in the processing area for reuse
	Reduce water use and water consumption	Operating cost down	• Save water and recycle wastewater through process improvements • Include water usage in monthly key performance indicators monitoring. Statistical analysis and comparisons on water consumption are performed. If any anomalies in water usage are detected, an immediate cause investigation is conducted, followed by improvement measures	• Invest in wastewater reclamation equipment • Improve process equipment and operation to reduce steam use • Constantly develop water conservation programs
	Use low-carbon energy	Increase in operating costs, reduction in carbon fees	• TTC implemented 32 energy-saving and carbon reduction measures in 2023, total investing NT$45.78 million, which is estimated to saved 3.79 million kWh of power and reduced carbon emissions by 1,874tCO2e	• Installation of solar PV power plant on rooftops • The priority for the source of purchased steam supply is natural gas. • Monitor and participate in the renewable energy market
	R&D of low-carbon and energy-efficient products	Increase in revenue	• The insulating properties of glass wool can reduce indoor air conditioning temperatures by 2 to 3 degrees Celsius, help save on air conditioning usage.	• TTC's product - glass wool made from recycled waste glass, possess fire-resistant, thermal-insulating, insulating, and soundproofing properties. It has passed various CNS standards tests, meeting the requirements for flame resistance and high sound absorption, and obtained Healthy Building Material Label.

3.2.2. Energy Usage and Management

USIG Energy Management Targets

USIG voluntarily set energy management targets in 2016 and began to make dynamic target reviews in accordance with the country's energy development policies and by keeping track on the internal trends and domestic laws and regulations. After measuring the internal and external factors, we set the 2030 carbon reduction target in early 2022 and set Carbon neutrality by 2050 in 2023. The 9 USIG core businesses began to implement the ISO 50001 energy management system and obtained the certificate on after another in 2018 to effectively manage energy performance and continuously improve energy conservation and carbon reduction, hoping to demonstrate USIG's influence and so to lower environmental impact.

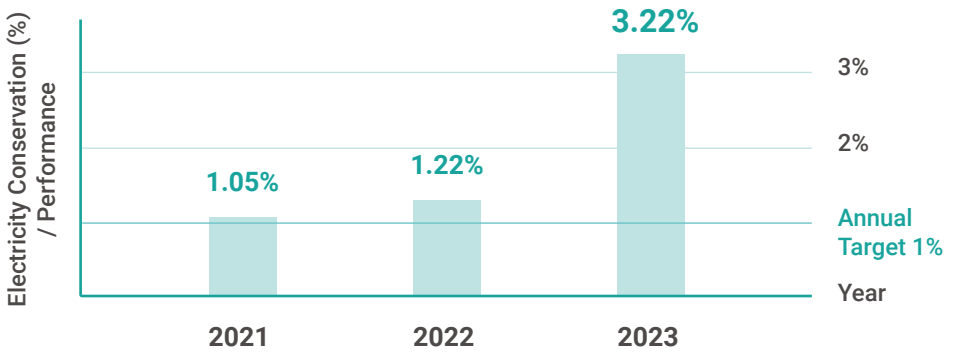
Group Technical Exchange Meeting

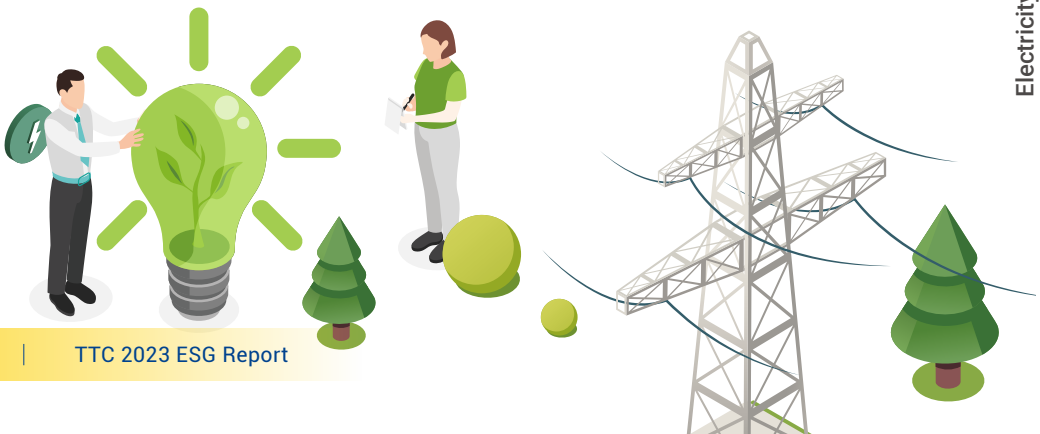
Every year USIG holds the "plant technology exchange meeting" and several "northern/ Kaohsiung plants resource integration meetings" for plants to share resources and exchange technologies to improve performance in energy conservation and carbon reduction. In 2023 the "plant technology exchange meeting" was held in October. Case presentations with themes including "industrial safety and environmental protection", "equipment preventive maintenance", and "energy conservation and carbon reduction" were conducted through competitions. Through plan technology case submission and documentary review, a total of 7 cases entered the final. Senior USIG officers and plant representatives elected the three best cases. The USIG chairperson presented the certificates and bonuses to the winners. Through ratings and encouragement, sharing, and mutual learning, we aim to advance technology in the group.

TTC's Commitment to the Group's Energy Management Goals

TTC has actively invested in energy-saving and carbon reduction programs. The electricity savings rate over the past three years is listed in the table below. These achievements exceed the legal requirement, which mandates an average annual savings rate of 1% or more. In 2023, TTC continued its dedication to promoting energy-saving projects. Initiatives, such as replacing old motors with high-efficiency energy-saving motors and renew outdated cooling water towers, are underway across all plants. These initiatives undergo periodic reviews, with the hope of further achieving the group's carbon reduction goals.

Electricity Savings Rate Achievement Overview Table for the Last Three Years





Energy Usage Details

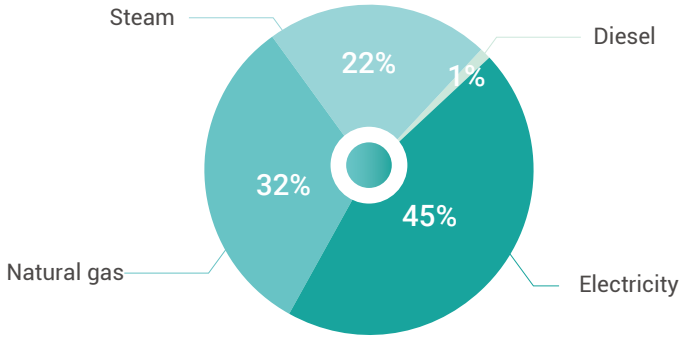
In 2023, the energy consumption calculation of TTC covered Lin Yuan Plant, Qianzhen Plant, Toufen Plant, and Zhongshan Plant, achieving a coverage rate of 100%. There was a slight increase of 4.8% in energy usage in 2023 compared to 2022, mainly because the Qianzhen plant produced GPS products with higher energy-consuming specifications, which led to an increase in natural gas consumption. Furthermore, regarding the energy consumption per unit product, although the energy intensity increased at the Lin Yuan Plant and Zhongshan Plant due to decreased production capacity, Delta Chemical Company's overall average energy intensity decreased by 4.33% compared to 2017, achieving the goal of reducing energy consumption per unit product by 3%.

Energy Usage Overview Table for the Last Three Years

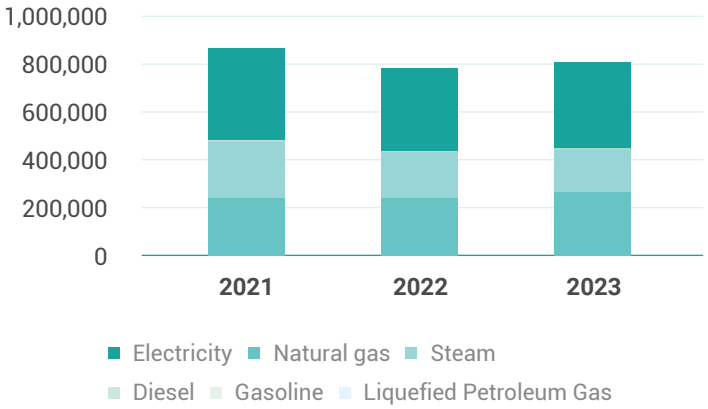
Energy Type	Unit	2021	2022	2023
Natural gas	GJ	242,997	222,644	260,733
Diesel	GJ	5,611	5,541	6,892
Steam	GJ	218,460	187,394	180,612
Electricity	GJ	402,607	356,458	360,574
Gasoline	GJ	-	-	184
Liquefied Petroleum Gas	GJ	-	-	48
Total consumption amount	GJ	869,676	772,036	809,083

Note 1: Referring to the conversion factors for electricity, diesel, gasoline, and liquefied petroleum gas announced by the Energy Administration, Ministry of Economic Affairs, they are 860Kcal/KWh, 8,400Kcal/L, 7,800Kcal/L, and 6,635Kcal/L respectively, where 1Kcal equals 4.187KJ.
Note 2: Referencing the steam calorific value tables from THERMOPEDIA, the calorific value of steam usage at an average furnace pressure of about 12.5 atmospheric pressures is calculated as 665,345Kcal/m3.
Note 3: The reference calorific value for natural gas used by electricity generation customers from CPC Corporation is 9,700Kcal/m3.
Note 4: The table above lists energy consumption and production data sources - statistics from the on-site unit consumption reports.
Note 5: Electricity accounts for 44.57% of the total energy used by the Company, all of which is purchased electricity (100%), with no use of renewable energy (0%) or self-generated energy (0%).
Note 6: Gasoline and liquefied petroleum gas have been included in the statistics starting from 2023.

Energy Consumption Category Distribution Graph for 2023



Energy Consumption by Type for the Last Three Years



Overview Table of Energy Consumption Per Unit Product by Plant for the Last Three Years

Plant	Product	Unit	2017 (Base year)	2021	2022	2023	Reduction Rate compared to Base Year	Achievement Status
Linyuan Plant	ABS + AS Resin	GJ/Ton of product	2.06	1.912	2.222	2.151	+4.28%	Not achieved
Qianzhen Plant	EPS + GPS Polystyrene	GJ/Ton of product	1.21	1.032	0.869	1.071	-11.38%	Achieved
Toufen Plant	Glass Wool + Curved Surface Printing	GJ/Ton of product	17.32	15.916	15.867	16.339	-5.65%	Achieved
Zhongshan Plant	EPS Polystyrene	GJ/Ton of product	1.09	1.147	1.232	1.221	+11.80%	Not achieved

Note 1: 2017 is set as the base year.
Note 2: Due to decreased production capacity, the Linyuan and Zhongshan plants experienced an increase in energy intensity.

3.2.3. GHG Management

TTC follows the 2030 carbon reduction goals set by the USIG in early 2022 that GHG emissions should 27% less than 2017 base year by 2030, and further set carbon neutrality by 2050 goal in 2023. This is reviewed regularly to ensure we meet annual emission targets. This goal is realized through the execution of various energy-saving initiatives and plans to reduce greenhouse gas emissions. Each plant has proposed measures like reducing process energy consumption, waste heat recovery and reuse, improving equipment efficiency, and energy management. There's also an integrated plan for energy and resource sharing across different plants to utilize waste heat steam efficiently and maximize resource use, further aiming to reduce greenhouse gas emissions.

TTC began promoting the adoption of ISO 14064-1:2018 greenhouse gas inventory operations in 2021 (Zhongshan and Tianjin subsidiaries in the TTC consolidated report will complete their verification in 2024). Third-party guidance and verification are sought to ensure the accuracy and reasonableness of greenhouse gas emission data. In 2023, the overall emissions (Scope 1 + Scope 2) of the Taiwan plants decreased by 17.9%, and carbon emissions per-unit product across all plants showed decrease compared to the base year.

Regarding Scope 3, which includes other indirect emissions, these include the organization's outsourced upstream and downstream supply chain, raw materials and the transportation and distribution of goods, as well as emissions related to the use and disposal of products, business travel, and employee commuting. In 2023, the Scope 3 emissions for the Taiwan plants were 45,313tCO_2e per year, which decrease of 12.14% compared to 2022, mainly due to a decline in product sales, which has led to lower emissions.

Overview Table of Achievement Rate of Carbon Reduction Pathway Emission Target

Unit: in ten thousand tons CO_2e/year

Plant	2023 Target Emissions	2023 Verified Actual Emissions	Achievement Rate %	2024 Target Emissions
Taiwan Plants	7.249	6.543	111%	6.468

Note: The verification of greenhouse gas emissions in 2023 has been completed, but the third-party verification statement has not been obtained before the report is issued.

Overview Table of Scope 1 and Scope 2 Emissions for the Last Three Years

Unit: in ten thousand tons CO_2e/year

Item	2017 (Base Year)	2021	2022	2023
Scope 1	18,551	15,153	14,869	15,788
Scope 2	61,149	59,745	49,282	49,644
Total Emissions	79,700	74,898	64,151	65,432

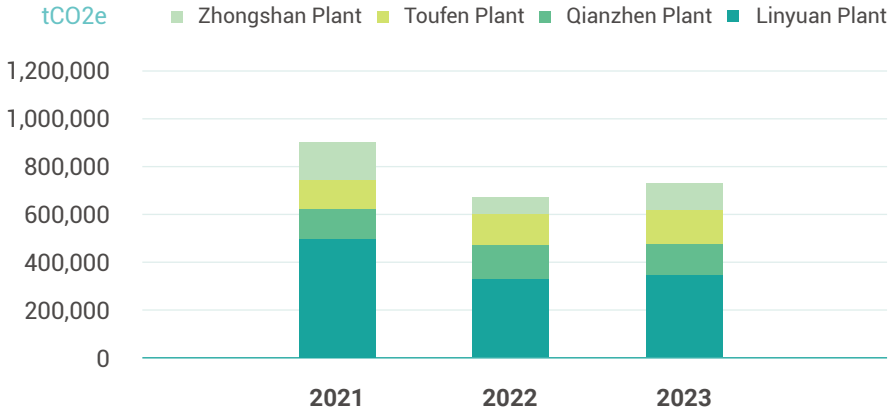
Overview Table of Scope 3 Emissions for the Last Three Years

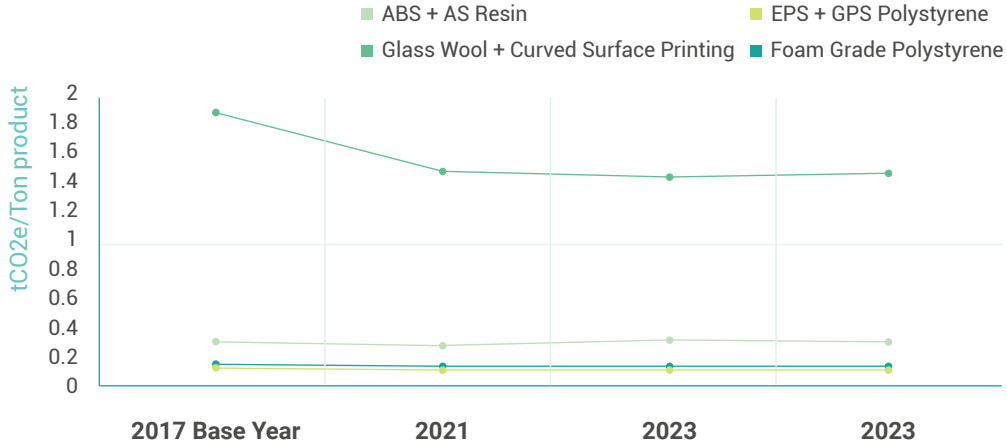
Unit: in ten thousand tons CO_2e/year

Item	2021	2022	2023
Scope 3	29,456	51,574	45,313

Note 1: The coefficients are adopted from the Ministry of Environment's Greenhouse Gas Emission Coefficient Management Table version 6.0.4 and the Intergovernmental Panel on Climate Change (IPCC) 2014 Fifth Assessment Report's Global Warning Potential (GWP) value.
Note 2: Carbon emissions in 2017 were recalculated using external verification methods but were not audited by a third party.
Note 3: The types of greenhouse gases include CO2, CH4, N2O, and HFCS.
Note 4: In response to regulations from the Taiwan Ministry of Environment and the Financial Supervisory Commission, the emissions data only includes Linyuan, Qianzhen, and Toufen plants. The mainland plants (Zhongshan and Tianjin) are excluded from this count.
Note 5: TTC's Taipei office 's 2023 greenhouse gas emissions are 0tCO_2e for Scope 1, 32.734tCO_2e for Scope 2, and 40.517tCO_2e for Scope 3.

Graph of Greenhouse Gas Emissions Changes for the Last Three Years





Trend Chart of Greenhouse Gas Emissions Per Unit Product for the Last Three Years Compared to the Base Year

Plant	Product	Unit	2017 (Base Year)	2021	2022	2023	Percentage Change Compared to Base Year
Linyuan Plant	ABS + AS Resin	tCO2e/Ton product	0.270	0.242	0.258	0.242	-10.28%
Qianzhen Plant	EPS + GPS Polystyrene	tCO2e/Ton product	0.125	0.082	0.082	0.091	-27.36%
Toufen Plant	Glass Wool + Curved Surface Printing	tCO2e/Ton product	1.857	1.496	1.414	1.440	-22.45%

Note: The unit carbon emission values disclosed in this report are self-estimated and have not been verified by a third party.

Promotion of Energy-Saving and Carbon Reduction Initiatives

- TTC has established energy-saving and carbon-reduction committees in all its Taiwan-based plants. They convene regular Energy Resource Integration Meetings to share experiences and collaboratively drive effective and pragmatic energy-saving and carbon-reduction initiatives. The plants set energy-saving and carbon-reduction strategies, as well as plant-wide reduction targets, and review the performance on a quarterly basis.
- Every two months, each plant's Environmental, Health, and Safety (EHS) team convenes an EHS implementation meeting. This meeting tracks the progress of energy-saving and carbon-reduction initiatives, evaluates compliance with applicable regulations, and actively urges each plant to fulfill its energy-saving and carbon-reduction responsibilities.
- In mainland China, the Zhongshan plant holds annual energy-saving and carbon-reduction meetings, aligning with the government's carbon-reduction policies. They establish strategies and targets for each unit, which are reported to the Zhongshan Development Zone government every year.

2023 Energy-Saving and Carbon-reducing Measures

- All plants executed **32** energy-saving and carbon-reducing measures
- Collectively conserving about **3.79** million kWh of electricity
- Reducing approximately **1,874** tCO2e emissions

2023 Performance Overview Table of Energy-Saving and Carbon-Reduction Measures

Plant Area	Measures	2023 Performance	
		Power Saved (kWh)	Carbon Reduction (tCO2e)
Linyuan Plant	1 Replaced cooling tower E6208C-1/2 in the public area with E6208E-3 (including the cooling tower) and E6208-1 2 Replaced mercury lamps in Zones 11, 12, 13, 21, 22, and 25 (explosion-proof areas) with LEDs (12 hours of lighting) 3 Upgraded the 3.3kV/460V 1000KVA transformer in the public area with a high-efficiency model 4 Upgraded B3473, B2644C-2, and B8266-3 to air-float blowers 5 Replaced sleeve for the extruder on Line B with the far-infrared heater	1,175,477	581
Qianzhen Plant	1 Installed an EPS 100HP and a public area 150HP variable frequency air compressor to enhance energy-saving and carbon reduction efficiency by replacing older air compressors 2 Replaced NOVA 8 SILO Blower motors B8764 (100HP), B8101 (100HP), and B8704-2 (150HP) with high-efficiency IE3 motors 3 Upgraded old cooling towers with new ones that offer enhanced energy-saving and carbon reduction efficiency 4 Replaced five old energy-saving motors with IE3 motors 5 Optimized variable-frequency settings of air compressor C7210-2 and the RTO blower to reduce power consumption during idling 6 Replaced P7010, the traditional motor in dryer M2125, and CA-672 with high-efficiency IE3 motors	2,180,093	1,077
Toufen Plant	1 Upgraded tempering stove combustion blower #3 motor (2009) and the east side gas combustion blower motor (1996) 50HP to IE3 motors 2 Replaced agitated tank motor in the batching area A6 (1993) 20HP and the side cutter dust collection motor (1997) 10HP with IE3 motors 3 Upgraded the water wash pool blower motors (1995) north side A and south side B 7.5HP to IE3 motors 4 Replaced the dust collector fan for the packaging machine (1997) 5HP and the west side (upper) blower motor (2003) 100HP with IE3 motors 5 Upgraded the west side gas combustion blower motor (1996) 40HP to the IE3 motor 6 Replaced a total of 13 motors for equipment including screw conveyor, spinning machine, process cooling, and inclined vibrating screen, etc. 7 Replaced a total of seven motors for equipment including large heated rollers speed reducer motor, exhaust blower, bucket elevator, and spinning machine to IE3 motors 8 Replaced furnace base cooling blowers for furnaces 103 and 104 with two 40HP motors 9 The average temperature before refractory brick lining in the main furnace (August 2022) was 493.1°C, and after the brick lining (August 16, 2022), it decreased to 386.1°C, a reduction of 107°C, achieving a 21.7% reduction in insulation and cooling temperatures	437,730	216
Total	–	3,793,300	1,874

Note 1: Unit conversion factor: 1 kWh=0.494 kgCO2e
Note 2: The Zhongshan plant has not yet drafted plans, so it is not presented in this table

2024 Energy-Saving and Carbon-reducing Measures

We plan to implement **9** energy-saving and carbon-reducing measures

We anticipate power savings of approximately **1.43** million kWh

A targeted carbon reduction of around **752** tCO2e

Overview Table of Planned Energy-Saving and Carbon-Reduction Measures for 2024

Plant Area	Measures	2024 Goals	
		Power Saved (kWh)	Carbon Reduction (tCO2e)
Linyuan Plant	1 Replaced B2790 Roots blower in area 27 (TOYO SAN process area) with energy-saving air-float blowers 2 Replaced P2572-2 in area 25 (SUKA SAN process area) with a high-efficiency pump 3 Upgraded B3403-3, 4, 5, and 7 to air-float blowers	654,183	323
Qianzhen Plant	1 Replaced the air dryer to an energy-saving dryer 2 Replaced C2910-4 air compressor to an energy-saving air compressor 3 Upgraded old cooling towers (replaced with higher-efficiency cooling towers) to enhance energy savings and reduce carbon emissions 4 Upgraded traditional motors (40HP) to a total of five high-efficiency, energy-saving IE3 motors 5 Replaced the steam boiler burner to an environmentally friendly burner	404,632	241
Toufen Plant	1 Replaced air compressor #1	380,296	188
Total	–	1,439,111	752

3.3 Water Resources Management

GRI 3-3, GRI 303 (303-1, 303-2, 303-3, 303-4, 303-5)

3.3.1. Water Resources Management

Material Topic Water Resources Management

Impact Scope Government agencies, local communities, employees

Material Reason Water resources are essential for operational development. As the risks of water scarcity and water-related disasters increase, ensuring a stable water supply has become a crucial issue for our company. Wastewater discharge has exceeded the natural purification capacity of water bodies in recent years, leading to water pollution issues and affecting the use of water resources.

Sustainability Principles & SDGs Alignment Friendly Environment Creation / SDG 6: Clean Water and Sanitation

Management Approaches	Policy Purpose	Reduce water consumption to lessen production costs and the environmental impact of wastewater discharge. Objectives are set with 2017 as the base year for short, medium, and long-term reduction.		
	Objective	2023 Goals 1. Reduce water consumption per unit of product by 3% compared to the baseline year 2. Discharge water quality meets the standard	Short-term Goals in 2024 1. Reduce water consumption per unit of product by 3% compared to the baseline year 2. Discharge water quality meets the standard	Medium- & Long-term Goal in 2030 1. Reduce water consumption per unit of product by 10% compared to the base year 2. Discharge water quality meets the standard
	Management Plan	1. Introduce or upgrade equipment, and reuse wastewater to reduce water consumption. 2. Strictly regulate water usage in the plant to prevent water wastage and increased wastewater discharge.		
	Evaluation of the Management	Monitor "water consumption per unit of product" and "rate of exceeding water discharge quality standards" as key performance indicators. Present reports to management and conduct an annual review to assess the previous year's performance and suggest improvements.		
	Assessment Mechanism	Continuously implement the ISO 14001 Environmental Management System for systematic management of water resource usage.		
	Assessment Result	1. Water Consumption per Unit of Product over the Last Three Years: In 2023, water consumption per unit decreased by 26.5% compared to 2017, the goal has been achieved. 2. Water Quality and Discharge over the Past Three Years: In 2023, all plants of TTC met the regulatory standards for wastewater discharge.		
	Negative Impact Remedies and Preventive Measures:	Water reservoir shortage leading to production interruption: Participate in public sector water-saving plans and explore alternative water sourcing methods, such as water trucks.		
	Policy Adjustment	Proposals for improvements concerning unmet targets are presented and reviewed during management review meetings.		
	Grievance Mechanism	Details can be found in Section 3.1.2 under the Environmental, Safety, and Health Complaint Channel.		

Status and description for goal achievement

Management Plan	2023 Goals	2023 Achievements	Explanation (including reasons for non-achievement)
Water-saving and Wastewater Improvement Plan Tracking	Consumption per unit compared to the baseline year decreased by 3%	Consumption per product unit decreased by 26.5%	✓ The goal has been achieved
	Discharge water quality meets the standard	Discharge water quality of all plants meets the standard	✓ The goal has been achieved

TTC leverages its existing technologies and expertise, adhering to principles of source management, waste reduction in processes, and end-point controls, to minimize water demand and reinforce water resource reuse and accelerated recovery processes. In 2023, the total water intake was 928 million liters, the total wastewater discharge was 612 million liters, and the total water consumption amounted to 316 million liters.

The scope of water resource management encompasses the Linyuan Plant, Qianzhen Plant, Toufen Plant, and Zhongshan Plant, achieving a coverage rate of 100%.

TTC employs the water risk assessment tool developed by the World Resources Institute (WRI). In conjunction with the water source distribution of each plant site, the company uses the Aqueduct Tool as its method for water risk assessment, pinpointing the water stress situation of each plant's water intake location. The analysis indicates that the Linyuan Plant and Qianzhen Plant are regions with relatively higher risk for TTC. Apart from utilizing the TCFD framework to assess the impact of climate change on water resources, the company continually enhances its in-plant water recovery rate, thereby bolstering its adaptive capacity in the face of risks.

Plant	Linyuan Plant	Qianzhen Plant	Toufen Plant	Zhongshan Plant
Primary Water Sources	Fengshan Reservoir	Fengshan Reservoir	Yonghe Mountain Reservoir	Hengmen Canal
Water Stress Situation	Moderate to High (20 - 40%)	Moderate to High (20 - 40%)	Low to Moderate (10 - 20%)	Low (<10%)

Note: The WRI (Water Resource Institute) Aqueduct Tool is used for water risk assessment.
http://www.wri.org/our-work/project/aqueduct/aqueduct-atlas

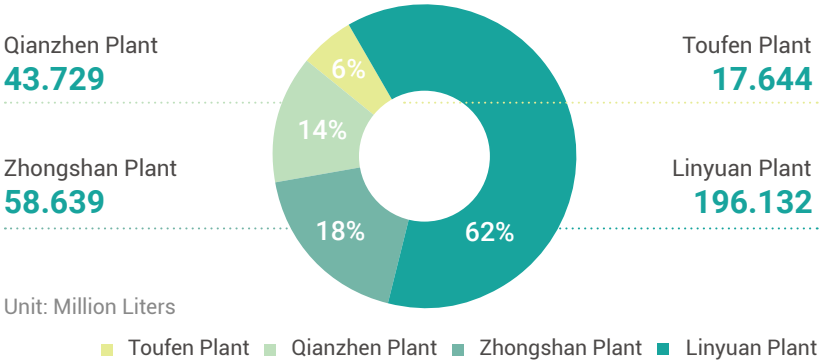
All Taiwanese plants source their water from municipal water plants. The Zhongshan Plant, however, procures its supply from neighboring plants. In 2023, the water consumption amounted to 316 million liters, a decrease of approximately 19.29% compared to the base year of 2017. The water consumption per unit product has reduced by 26.34%.

Water Consumption and Per Unit Product Water Consumption Overview Table for the Last Three Years

Item	2017 Base Year	2021	2022	2023
Total Water Intake (Million Liters)	1,064	1,110	935	928
Total Water Consumption (Million Liters)	392	471	328	316
Water Consumption Per Unit Product (Ton/ Ton Product)	1.339	1.181	1.024	0.9867

For the water consumption of products in each plant, the Linyuan plant's ABS+AS resin has the highest proportion, accounting for approximately 62%. Following this, the Zhongshan plant's foam-grade EPS resin accounts for about 18.6% of the water consumption.

2023 Percentage Distribution of Water Consumption by Plant

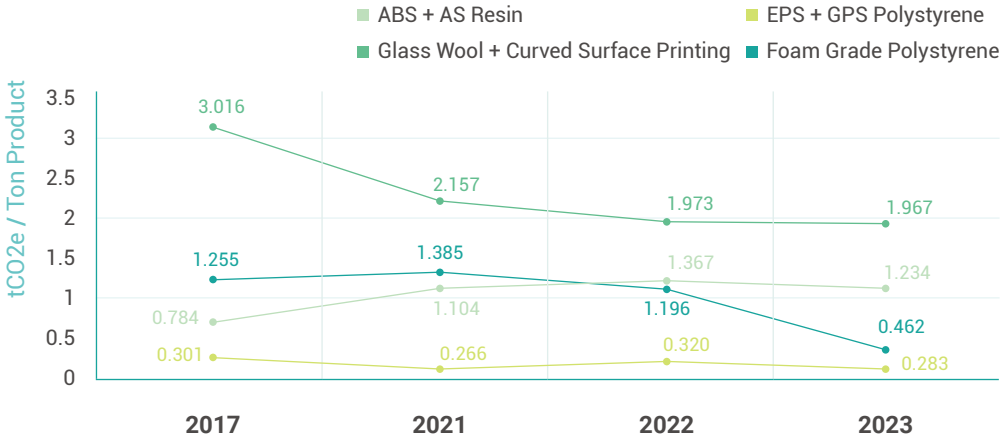


Water Consumption Per Unit Product for Various Products Overview Table for the Last Three Years

Plant	Product	Unit	2017 (Base year)	2021	2022	2023	Increase/Decrease Rate Compared to Base Year 2022%
Linyuan Plant	ABS + AS Resin	Ton/Ton Product	0.784	1.104	1.367	1.234	+ 57.38%
Qianzhen Plant	EPS + GPS Polystyrene	Ton/Ton Product	0.301	0.266	0.320	0.283	- 5.94%
Toufen Plant	Glass Wool + Curved Surface Printing	Ton/Ton Product	3.016	2.157	1.973	1.967	- 34.81%
Zhongshan Plant	Foam Grade Polystyrene	Ton/Ton Product	1.255	1.385	1.196	0.462	- 63.19%

Note 1: 2017 is set as the base year.
Note 2: After 2017, due to the Linyuan plant has seen a continuous increase in production capacity, resulting in a consumption rate higher than the set baseline year.

Comparison Graph of Water Consumption per Unit Product for the Last Three Years and the Base Year

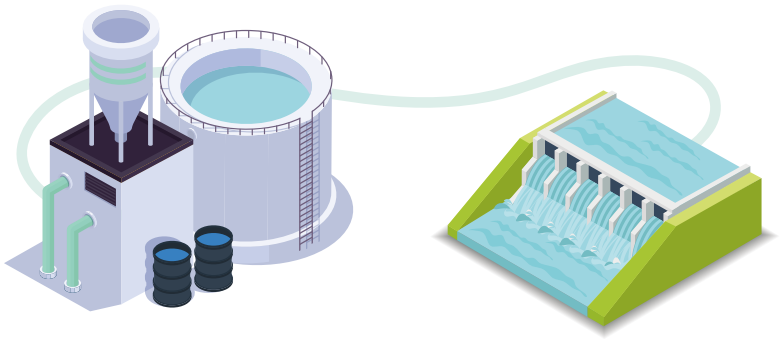


TTC's Water Recycling and Reuse Percentage for 2023

Total Amount of Water Resource Recycling and Reuse **448.425** tons

Percentage of Water Resource Recycling and Reuse **142** %

Note: Percentage of Water Resource Recycling and Reuse = (Annual Amount of Water Resource Recycling and Reuse) / (Annual Water Consumption) x 100%



Water-saving Measures

TTC actively manages water resources by achieving water-saving results through measures such as conserving water in processes, wastewater recycling and reuse, and rainwater collection and reuse.

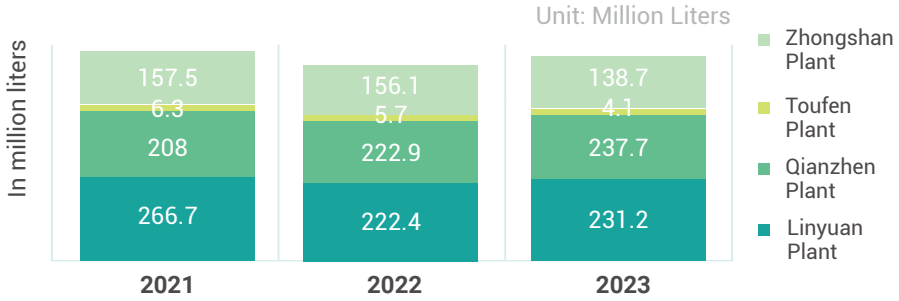
Through improvements in water-saving processes and multiple schemes like wastewater recycling and reuse, there's a significant increase in the wastewater reuse rate. Beyond implementing water-saving plans, water usage has further been included in the monthly key performance indicator monitoring. Statistics and analysis are performed on water usage. If any anomalies in water consumption are detected, an immediate investigation into the cause is initiated, followed by necessary improvements.

All the plants under TTC properly handle process wastewater and other wastewater. For wastewater discharge, each plant operates at standards that surpass regulatory requirements. The wastewater from Toufen Plant is treated by CGPC. In 2023, all the plants complied with regulatory discharge standards.

Plant Area	Wastewater Discharge Standard	Discharge Destination
Linyuan Plant	• Secondary biological treatment up to the industrial area's joint wastewater treatment plant standard	• Discharged via underground pipelines to the joint wastewater treatment plant and subsequently discharged into the ocean after treatment.
Qianzhen Plant	• Secondary biological treatment up to the standard for water discharge.	• Discharged to an external open drain and then discharged into the Kaohsiung port.
Toufen Plant	• The fiberglass production process is an environmentally friendly process with no wastewater. Water used in the process is filtered and recycled. Rainwater is also filtered and used in the fiberglass production process. Wastewater generated from the curved printing process is treated by CGPC up to the water discharge standard.	• Discharged jointly with CGPC into the Zhonggang River.
Zhongshan Plant	• Treated in accordance with the national standard GB31572-2015 "Pollutant Discharge Standard for the Synthetic Resin Industry".	• Discharged into the Hengmen Canal.

In 2023, TTC's total water discharge slightly increased by 0.76% compared to 2022. All the plants treated wastewater to standards higher than regulations. In addition to periodic reviews, improvement measures are set annually. In the last three years, all primary water quality tests met legal discharge standards.

Graph of Water Discharge by Each Plant Over the Past Three Years



Wastewater Improvement Plans for 2023~2024

Plant Area	Improvement Measures
Linyuan Plant	A fine screening machine has been added to reduce the quantity of suspended solids (SS) in the wastewater in Zone 82.
Toufen Plant	Renovation of Domestic Wastewater Pipeline
Zhongshan Plant	Wastewater Treatment Plant Water Reuse (approximately 46%) Technology Improvement Project

Self-tested Results on Main Water Quality Parameters by Each Plant Overview Table for the Last Three Years

Plant Area	Water Quality	2021	2022	2023	Emission Standard
Linyuan Plant	pH value	7.2	7.2	7.1	6~9
	COD (mg/L)	75.6	45.55	38.6	100
	SS (mg/L)	13.0	11.4	9.1	30
Qianzhen Plant	pH value	7.3	7.2	7.3	6~9
	COD (mg/L)	21.9	26.2	24.3	100
	SS (mg/L)	9.8	12.6	5.65	30
Zhongshan Plant	pH value	7.4	7.32	7.2	6~9
	COD (mg/L)	25.0	19.19	29.4	60
	SS (mg/L)	10.5	9.2	9	30

Note: The water quality test values are averaged from two tests conducted per year.

3.4 Air Pollution Control

GRI 3-3, GRI 305 (305-7)

Material Topic Air pollution control

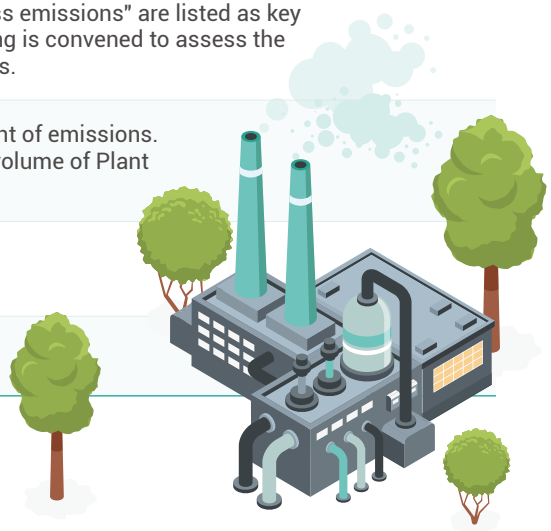
Material Reason During their production processes, the plants of TTC emit key air pollutants, including particulate matter (referred to as Par), sulfur oxides (abbreviated as SOx), nitrogen oxides (referred to as NOx), and VOCs. Due to deteriorating air quality, government agencies at all levels emphasize monitoring emissions of air pollutants. The Kaohsiung-Pingtung area has also implemented total control on air pollutants, directly impacting the Linyuan and Qianzhen plants.

Impact Boundaries Government agencies, local communities, and employees

Impact Scope The air pollutants emitted during the production processes have significant impacts on the environment and human health. In recent years, fine particulate matter has been identified to have a profound effect on human health. Nitrogen oxides appear reddish-brown in the air, contribute to acid rain, and can potentially lead to respiratory diseases in humans.

Sustainability Principle & Correspondence to SDGs Create a Friendly Environment/SDGs 11 Sustainable Cities and Communities

Management Approaches	Policy Purpose	To mitigate the environmental impact of air pollution emissions and, during operations, minimize the factors endangering the health of employees and residents living near the plant areas.		
	Objective	2023 Goals	Short-term Goals in 2024	Medium- & Long-term Goal in 2030
		The number of fines for exceeding the limit of air pollutant emissions is 0	The number of fines for exceeding the limit of air pollutant emissions is 0	The number of fines for exceeding the limit of air pollutant emissions is 0
	Management Plan	1. Add or update equipment to reduce pollutant emissions. 2. Strictly control the emission quality of flue gases from plants and strengthen autonomous management of VOCs emissions.		
	Evaluation of the Management	The "number of fines for exceeding air pollutant emission limits" and the "number of cases of abnormal mass emissions" are listed as key performance indicators. A review report will be presented to the management level. An annual review meeting is convened to assess the performance of the previous year, aiming to propose improvement measures and evaluate their effectiveness.		
	Assessment Mechanism	1. Continuously implement the ISO 14001 environmental management system for a systematic management of emissions. 2. Establish monitoring and testing equipment and forecasting methods to observe the concentration and volume of Plant emissions, allowing for real-time control of emission scenarios and eliminating abnormalities.		
	Assessment Result	1. Annual emissions of various pollutants over the last three years 2. Environmental-related fines		
	Grievance Mechanism	As explained in the "Environment, Safety, and Health Appeal Channels" section 3.1.2.		



Status and description for goal achievement

Management Plan	2023 Goals	2023 Achievements	Explanation (including reasons for non-achievement)
Review and Monitoring of Air Pollution Control Management	The number of fines for exceeding the limit of air pollutant emissions is 0	Air pollution fines: 3 cases	Target not achieved

In 2023, the Linyuan Plant of TTC had three incidents exceeding the air pollution limit. However, there were no over-limit incidents at the Qianzhen, Toufen, and Zhongshan plants, all of which complied with national emission standards.

TTC's 's main air pollutants include TSP, SOx, NOx, and VOCs. The table below describes their primary sources. The changes in emissions of air pollutants at Taiwan plants from 2021 to 2023 were minimal. However, from 2021 onwards, the VOCs emissions from the Zhongshan Plant were higher due to a change in the calculation method mandated by the environmental authority in the mainland area, which differs from the method used in Taiwan.

Overview Table of Main Air Pollutants and Their Sources in Each Plant

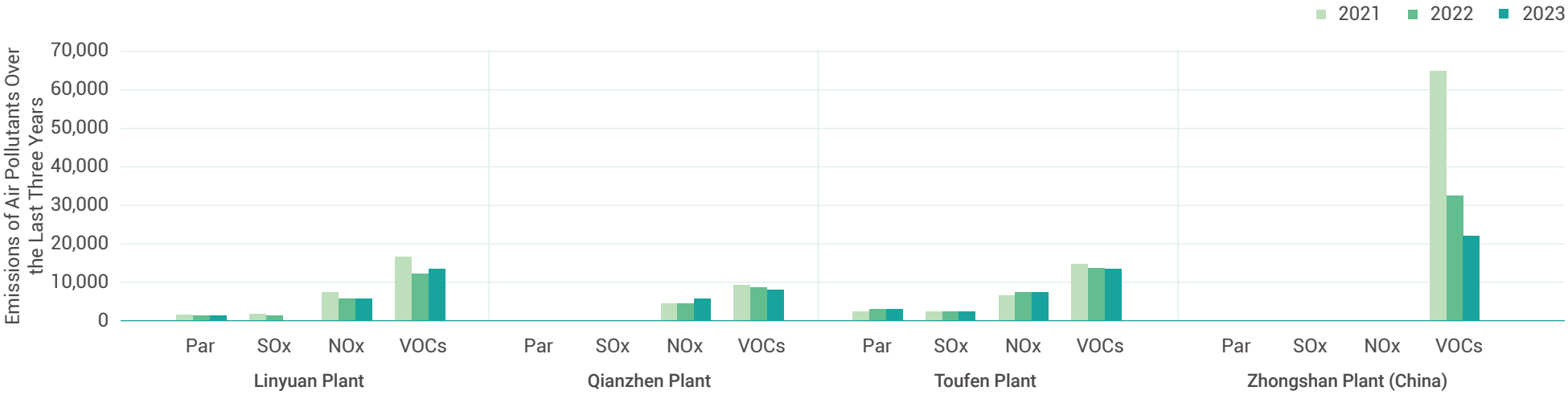
Plant Area	Main Air Pollutants	Primary Sources
Linyuan Plant, Qianzhen Plant	Particulates, Sulfur Oxides, Nitrogen Oxides	Emissions from thermal media boilers, incinerators, and exhaust combustion towers.
	Volatile organic compounds (VOCs)	Emissions from exhaust combustion towers, storage tanks, equipment components, process exhaust ducts, wastewater treatment plants, and regenerative incinerators.
Toufen Plant	Sulfur Oxides, Nitrogen Oxides	Emissions from fiberglass formation and drying ovens.
Zhongshan Plant	Volatile organic compounds (VOCs)	Styrene emissions from the production process, which are annually tested by third-party contractors. The emission results comply with the "Pollutant Emission Standards for the Synthetic Resin Industry" (GB 31572-2015).

Emissions of Main Air Pollutants by Plant Overview Table for the Last Three Years

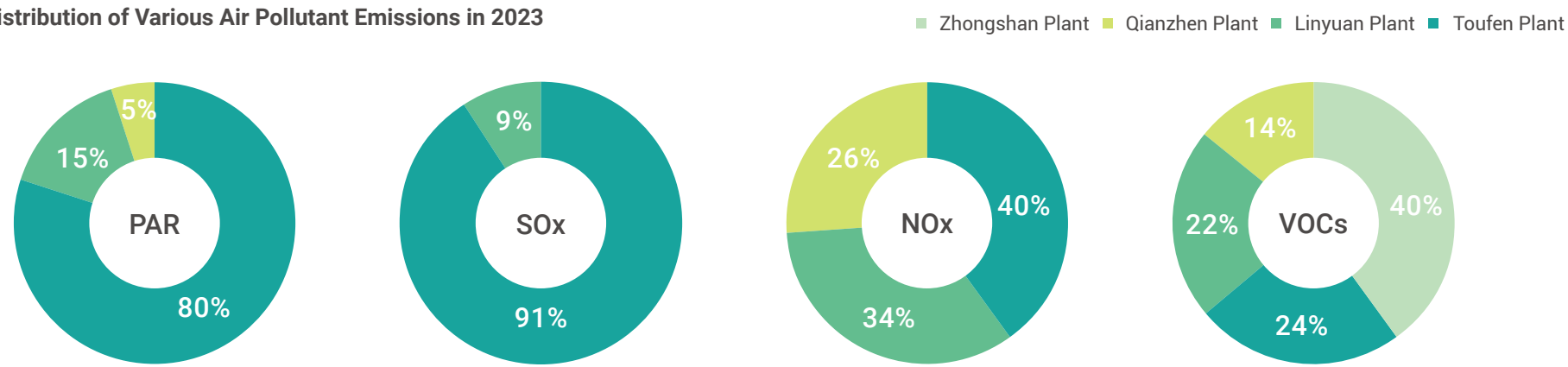
Plant	Type	Unit	2021	2022	2023
Linyuan Plant	Particulates (Par)	Kg	838	577	579
	SOx	Kg	755	557	261
	NOx	Kg	7,116	6,050	5,999
	VOCs	Kg	15,437	12,148	12,522
Qianzhen Plant	Particulates (Par)	Kg	125	136	175
	Sulfur Oxides (SOx) Note 1.	Kg	0	0	0
	NOx	Kg	3,271	3,357	4,555
	VOCs	Kg	9,365	8,738	8,150
Toufen Plant	Particulates (Par)	Kg	2,903	3,056	3,057
	SOx	Kg	2,498	2,552	2,576
	NOx	Kg	6,606	6,868	7,048
	VOCs	Kg	14,472	13,567	13,394
Zhongshan Plant	Particulates (Par)	Kg	-	-	-
	SOx	Kg	-	-	-
	NOx	Kg	-	-	-
	Volatile Organic Compounds (VOCs) Note 2.	Kg	64,849	33,134	23,037

Note 1: The SOx emissions of the Qianzhen plant decreased to 0 due to changes in the estimation emission coefficient.
Note 2: In 2021, as per the requirements of the local environmental authorities, the raw material data and pollution control equipment data were input into the system. The VOCs emission figures were then automatically generated by the government environmental agency's system. The method used for estimating these emissions differs from the one used in Taiwan.

Emissions of Air Pollutants Over the Last Three Years:



Graph of Distribution of Various Air Pollutant Emissions in 2023



Note: Zhongshan Plant sources its heat from a neighboring plant by purchasing steam, thus it doesn't have its own boilers or incinerators. Consequently, it does not emit particulates, sulfur oxides, or nitrogen oxides. As for VOCs emissions, they are estimated according to local mainland regulations, which only consider emission channels. Emissions from other sources, such as equipment components, currently have no available data for estimation.

Air Pollutant Emission Improvement Plan for 2023

Plant Area	Situation in 2023	Explanation (including reasons for non-achievement)	Improvement Plan for 2023
Linyuan Plant	3 Exceedance Cases	On September 8, 2023, inspectors from the Kaohsiung City Environmental Protection Bureau Auditing Section conducted an odor patrol inspection at the Plant. They discovered that the exhaust hood of the extruder at Line A in Area 26 was inefficient at capturing emissions, leading to odor dispersion. A fine of NT$225,000 was imposed in accordance with Paragraph 1, Article 23 of the Air Pollution Control Act.	1. The exhaust hood and collection duct of the extruder at Line A in Area 26 were immediately cleaned with steam, and the fan belts were replaced and inspected on the spot. 2. The belt driven pulley was replaced and the damper settings were adjusted. 3. Following the repairs to the exhaust hood, it is mandatory to take photos and record video before resuming operations, and to test for VOCs concentrations (recommended to be below 10 ppm) to confirm exhaust hood (effectiveness of the exhaust). 4. Officials from the Environmental Protection Bureau confirmed on September 12 that the improvements at Line A in Area 26 had been successfully completed.
		On September 8, 2023, the Air pollution and Noise control Division of the Kaohsiung City Environmental Protection Bureau dispatched inspectors to the Plant. They found discrepancies between the actual emission paths of the neutralization tanks and screening machines in Area 26 and the emissions directions indicated on the Stationary Pollution Source Operation Permit (M02). A fine of NT$130,000 was imposed in accordance with Paragraph 2, Article 24 of the Air Pollution Control Act.	1. The sizes of the covers for the neutralization and coagulation tanks were re-verified. If any discrepancies were found, new covers were fabricated and fitted with rubber gaskets to enhance sealing effectiveness. 2. The exhaust hoods of the screening machines were redesigned and fabricated to channel emissions into the RTO for treatment. 3. Following the requirements of the Environmental Protection Bureau, an application for a change to the air pollution permit (M02) was submitted on October 17. Following, in accordance with the regulations for "Mandatory Improvements within a Specified Period under the Air Pollution Control Act", an improvement report will be submitted to the Environmental Protection Bureau within 90 days of receiving the notification.
		On September 12, 2023, the Air pollution and Noise control Division of the Kaohsiung City Environmental Protection Bureau dispatched inspectors to the Plant to conduct inspection checks on equipment components. The inspection revealed that two points of equipment components had leak concentrations exceeding the "Kaohsiung City Equipment Component Volatile Organic Compounds Control and Emission Standards", set at 2000ppm. A fine of NT$150,000 was imposed under Paragraph 1, Article 20 of the Air Pollution Control Act.	The leaking components located at Area 24 (P2423-2N03) and Area 25 (E2521-2F02) were immediately repaired by the mechanical repair section during the inspection. On September 13, an external inspection testing company was commissioned to reinspection these components, and the results were reported to the Environmental Protection Bureau, confirming that the improvements were satisfactory.

Air Pollutant Emission Improvement Plan for 2024

Plant Area	Air Pollutant Emission Improvement Plan
Linyuan Plant	• Continue to add flue gas denitration control equipment (selective catalyst) to boilers to reduce the emission concentration of nitrogen oxides. • The baghouse dust collector in the waste incineration furnace has been updated to enhance the efficiency of air pollutant control equipment. • Modification of the collecting hood in the processing area to improve its efficiency.
Qianzhen Plant	• Regenerative Thermal Oxidizer (RTO) is expected to have its metal Pall rings replaced to prevent an increase in pressure differential and ensure that there are no gas leaks.
Toufen Plant	• Energy methods in the ceiling line dryers are being improved to comply with air pollution emission standards • Updated the post-furnace cooling blower

3.5 Waste management

GRI 3-3, GRI 306 (306-1, 306-2, 306-3, 306-4, 306-5)

Material Topic Waste Management

Material Reason The government enforces strict requirements for the industry to ensure proper waste disposal and traceability. With the existing waste landfill sites nearing capacity, the prices for processing facilities are increasing. Qualified waste disposal companies are hard to find, which affects waste processing for various plants.

Impact Boundaries Government agencies, local communities, and employees

Impact Scope If waste produced during the manufacturing process isn't properly handled, it will impact the environment.

Sustainability Principle & Correspondence to SDGs Create a Friendly Environment/SDGs 12 Responsible Consumption and Production

Management Approaches	Policy Purpose	Comply with waste-related regulations, fulfill our duties with due diligence, and minimize waste generated during the production process.		
	Objective	2023 Goals Strengthen the waste patrol inspection system; The proper treatment rate of waste is 100%	Short-term Goals in 2024 Strengthen the waste patrol inspection system; The proper treatment rate of waste is 100%	Medium- & Long-term Goal in 2030 Implementing waste reduction
	Management Plan	1. Establish a waste audit management system 2. Strictly control waste treatment in the plant and commission legitimate vendors for disposal 3. With the addition or update of equipment, promote waste reduction plans to decrease the amount of waste		
	Evaluation of the Management	Measure the "Proper Waste Handling Rate" and present an assessment report to the management during the annual management review meeting. This allows for a review of the past year's performance and the formulation of improvement measures, as well as an evaluation of the effectiveness of those measures.		
	Assessment Mechanism	Continuously implement the ISO 14001 Environmental Management System to systematically manage waste treatment.		
	Assessment Result	Annual waste generation and proper handling ratio.		
	Policy Adjustment	For unmet targets or proposed improvement plans, reviews and adjustments will be presented during the management review meeting.		
	Grievance Mechanism	Details can be found in Section 3.1.2 under the Environmental, Safety, and Health Complaint Channel.		

Status and description for goal achievement

Management Plan	2023 Goals	2023 Achievements	Explanation (including reasons for non-achievement)
Waste Management System Review and Monitoring	Strengthen the waste inspection system	Number of inspections: 17 times	✓ The goal has been achieved
	The proper waste handling rate is 100%	The proper handling rate is 100%	✓ The goal has been achieved

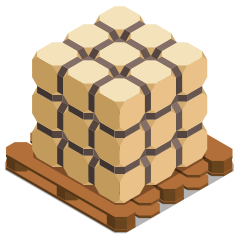
TTC produces waste during production and processing stages of product manufacturing. In recent years, in response to increasingly strict standards imposed on waste disposal contractors, each facility, besides intensifying the advocacy of proper waste classification, storage, and labeling, also endeavors to reduce waste production. This ensures that waste disposal aligns with legal regulations.

TTC adheres to waste management regulations, commissioning certified disposal organizations for waste treatment. We require these operators to provide proper handling documents, periodically check on the commissioned waste management status, and report on disposal volumes. Using the Global Positioning System (GPS) installed on waste disposal vehicles, we verify if the transportation routes align with the designated waste treatment facilities, conducting random vehicle inspections and establishing an autonomous waste inspection system to diligently fulfill our responsibilities. In 2023, a total of 17 inspections were conducted. The results complied with relevant legal stipulations, and each facility's waste generation and proper handling rate was 100% (Note: The proper waste handling rate indicates that all factory waste is properly treated by certified disposal contractors as per regulations). This aligns with our annual target.

Waste Generation and Disposal Process

In 2023, the total waste generated by TTC was 3,986.9 tons, an 8.61% increase compared to 2017. Due to the previously reported are bulk waste produced by each plant primarily. Starting in 2023, to effectively track the flow of waste, all amounts reported on the waste export website were fully included in the statistics. The waste generated by each plant was predominantly non-hazardous, with the disposal methods for general industrial waste being primarily incineration (excluding energy recovery) at 15.08%, landfill at 23.45%, and other disposal operations at 0%. In terms of recycling operations, preparation for reuse accounted for 0%, recycling for reuse for 58.63%, and other recycling operations for 2.84%. The percentage of waste recycled was 0%. The generation, transfer, and disposal volumes of general industrial waste from each plant over the last three years are shown in the table below.

Flowchart of Waste Generation for TTC



TTC's Waste Production, Transfer, and Disposal in the Last 3 Years

Unit: Tons

Plant	Hazardous/Non-hazardous	Type of Disposal	Method of Disposal	2021	2022	2023
Linyuan Plant	Non-hazardous waste	Direct treatment of general industrial waste	Incineration (excluding energy recovery)	690.8	542.9	316.0
			Landfill	0.0	0.0	10.0
			Other disposal operations	0.0	0.0	0
		Total weight of non-hazardous waste		690.8	542.9	326.1
		Recycling operations	Preparation for reuse	0.0	0.0	0.0
			Recycling for reuse	938.3	914.6	907.0
			Other recycling operations	52.8	26.5	20.2
		Total weight of non-hazardous waste		1,681.9	1,484.0	1,253.3
Qianzhen Plant	Non-hazardous waste	Direct treatment of general industrial waste	Incineration (excluding energy recovery)	92.6	72.1	83.6
			Landfill	0.0	0.0	0
			Other disposal operations	0.0	0.0	0
		Total weight of non-hazardous waste		92.6	72.1	83.6
		Recycling operations	Preparation for reuse	0.0	0.0	0.0
			Recycling for reuse	324.2	292.8	324.0
			Other recycling operations	73.9	68.8	82.5
		Total weight of non-hazardous waste		490.7	433.7	490.1
Toufen Plant	Non-hazardous waste	Direct treatment of general industrial waste	Incineration (excluding energy recovery)	30.1	50.6	39.3
			Landfill	0.0	0.0	0
			Other disposal operations	0.0	0.0	0
		Total weight of non-hazardous waste		30.1	50.6	39.3
		Recycling operations	Preparation for reuse	0.0	0.0	0
			Recycling for reuse	606.0	664.4	1,106.5
			Other recycling operations	0.0	2.1	10.6
		Total weight of non-hazardous waste		636.1	717.1	1,156.4

Plant	Hazardous/Non-hazardous	Type of Disposal	Method of Disposal	2021	2022	2023
Zhongshan Plant	Non-hazardous waste	Direct treatment of general industrial waste	Incineration (excluding energy recovery)	203.0	157.9	162.3
			Landfill	575.4	702.0	924.8
			Other disposal operations	0.0	0.0	0
		Total weight of non-hazardous waste		778.4	859.9	1,087.1
		Recycling operations	Preparation for reuse	0.0	0.0	0
			Recycling for reuse	0.0	0.0	0
			Other recycling operations	0.0	0.0	0
		Total weight of non-hazardous waste		778.4	859.9	1,087.1

Note: The "Other Recycling Operations" refers to the resource recovery of sludge. This is carried out by qualified processing plants using a thermal treatment method, after which it is used as a supplementary material for cement (not a product of TTC).

Plant	Hazardous/Non-hazardous	Type of Disposal	Method of Disposal	2021	2022	2023
Toufen Plant	Hazardous waste	Direct treatment of toxic industrial waste	Other disposal operations	0	2.1	0
		Total weight of hazardous waste		0	2.1	0

Note: After washing and processing by qualified contractors, the hazardous industrial waste from the Toufen Plant are crushed and sliced for recycling.

Waste Management Operations

Linyuan Plant

Since 2018, wastewater sludge has been dehydrated using a plate-and-frame type dehydrator, with the addition of a dryer to further reduce moisture, achieving sludge reduction. Some secondary materials (coagulants) from the process are sold to manufacturers as raw materials, reducing waste coagulant production. ABS powder in the process wastewater is also recycled for reuse, reducing sludge waste. Plans are in place to further reuse and recycle waste plastic within the plant to improve the waste reuse rate.

Toufen Plant

In 2015, they successfully developed a method to reuse waste glass wool, significantly reducing the need for waste landfilling. From 2016, through process waste reduction and repackaging of defective products, quality-inspected cotton that can be reused is sent back to the production line for packaging, reducing the handling of waste cotton. This has led to a continuous decrease in waste disposal. In 2022, the curved printing process was discontinued, reducing waste output.

Qianzhen Plant

Starting in 2018, wastewater sludge has been dehydrated using a plate-frame sludge dehydrator, reducing sludge weight. The sludge machine cleaning process was further optimized to improve efficiency. The plant plans to reuse its own waste to reduce waste generation.

Zhongshan Plant

Waste wood generated is sold for incineration by a management unit. Regular household waste is collectively recycled and incinerated by government sanitation units. Sludge is landfilled by a third-party company, while hazardous waste, with the consent of the Zhongshan City Environmental Protection Bureau, is processed by qualified companies.

Each plant's waste management and reduction plans are as follows: Improvement Plans for Waste Management in 2023 and 2024

Plant Area	2023 Improvement Initiatives	2024 Planned Initiatives
Linyuan Plant	• Enhance the recycling and reprocessing of in-plant waste (plastic waste) to increase the volume of materials being reused.	• Continuous promotion of the 2023 improvement plan.
Qianzhen Plant	• Opt for high-durability plastic pallets to reduce plastic waste by reusing multiple times.	• Recycling for reuse in-plant raw materials of flexible intermediate bulk container, repurposed for packaging products 751C and 331X.
Toufen Plant	• Reduce process waste, repackage defective products, and after quality control inspection, the usable cotton is returned to the production line, reducing waste cotton handling and continuously decreasing waste disposal.	• Continuous promotion of the 2023 improvement plan.
Zhongshan Plant	• Strengthen process management to reduce end-of-pipe treatment. • Reuse EPS with non-standard particle sizes and periodically sell scrap to downstream manufacturers.	• Continuous promotion of the 2023 improvement plan.