

# Producer of Green Products



- 4.1 Environmental Policy and Investment
- 4.2 Energy and Carbon Emission Management

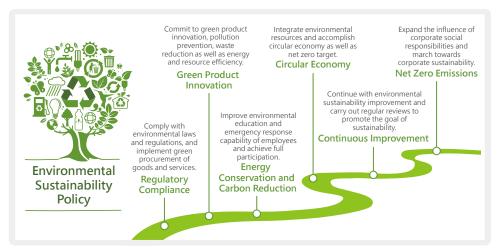
Column:Information-based Carbon Inventory System

**4.3 Waste Reduction Actions** 

# **4 Producer of Green Products**

### 4.1 Environmental Policy and Investment

Environmental sustainability is an important core value in the business strategy of the Taiflex Group. The Company is committed to adopting eco-friendly approaches in operation and management as well as devoted to pollution prevention and reduction control in compliance with environmental regulations. We work toward the long-term goals of net zero emissions by 2050, 100% renewable energy and zero waste. Our environmental sustainability policy and commitments are as follows:



With "zero environmental incident" being the fundamental goal, we adopted the ISO 14001 Environmental Management Systems and obtained certification in 2004 (as shown in the figure to the right) for full compliance with environmental regulations. Through comprehensive ESH management procedures, we control the potential adverse environmental risk. The Environmental Protection Department conducts quarterly regulatory compliance assessments on air pollution, water pollution, waste, toxins, and other items, and takes measures to address applicable laws and regulations. Improvement and preventive measures would be taken immediately if any risk of non-compliance is identified. There have been no environmental fines imposed nor incidents involving serious pollution leaks or violations of environmental regulations in the past five years.



There are no ecological reserves nor endangered species in the vicinity of our operation sites, and our operations do not have an adverse impact on the environment or surrounding species. Also, there are no species on the IUCN Red List in the neighborhood. We would continue to drive the upgrade and improvement of pollution prevention and control facilities as well as monitor the pollutant emissions. Abnormal values would be handled immediately by on-site personnel according to the emergency and reporting procedures as a precaution and to prevent pollution as well as violation of laws and regulations.

# 4.1.1 Build a green industry chain

# All products comply with international regulations

Given the rising trend of green environmental awareness, the use of electronic materials stresses on pollution reduction. Thus, material suppliers intensify their research and development efforts towards eco-friendly materials, which initiates a material revolution in the CCL industry. Currently, electronics manufacturers gradually shift towards eco-friendly substrates. With increasing environmental awareness and regulatory requirements, eco-friendly materials will become the basic product requirements.

Through the establishment of IECQ QC080000 Hazardous Substance Process Management System, international regulatory information is updated when needed and incorporated into the Company's management practices. We also solicit feedback from suppliers to ensure our products made of FPC materials comply with international regulations and customers' requirements related to hazardous substance management.

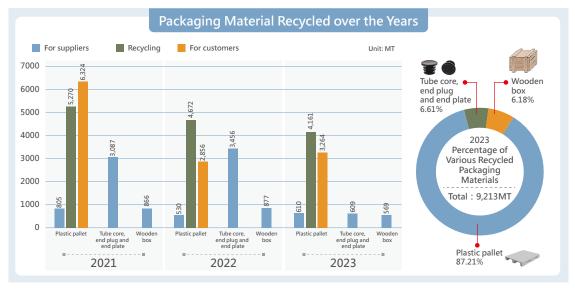
Regulation	Description	Product Conformity
EU's Restriction of Hazardous Substances Directive (EU RoHS)	The maximum levels of restricted substances: Lead, Cadmium, Hexavalent Chromium, Polybrominated Biphenyls and Polybrominated Diphenyl Ethers < 1,000ppm. The RoHS 2.0 includes four more restricted substances: Bis (2-Ethylhexyl) Phthalate (DEHP), Benzyl Butyl Phthalate (BBP), Dibutyl Phthalate (DBP) and Diisobutyl Phthalate (DIBP) < 1,000ppm.	Full compliance
Halogen-free electronics	Product must contain less than 900ppm of bromine and chlorine each, with a total under 1,500ppm.	Full compliance
Restrictions on Perfluorooctane Sulfonate (PFOS), Perfluorooc- tanoic acid (PFOA) and relevant substance	Raw materials containing PFOS, PFOA and relevant substances are not used in our process.	Full compliance
Registration, Evaluation, Authorization and Restriction of Chemicals (REACH) of the EU	Hazardous substances and the Substance of Very High Concern (SVHC) published by REACH	Full compliance
Waste Electrical and Electronic Equipment Directive (WEEE)	The directive is formulated to cope with the increasing waste electrical and electronic devices, mitigate the burden on landfills and incinerators, and prevent hazardous substance within the waste electrical and electronic devices from polluting the environment. Our products are not the end products; thus, we are not directly subjected to the WEEE. After the end products are used by the end users, FPC materials would turn into waste which shall be recycled by the manufacturers of the end products.	Not applicable



# Reduce the environmental footprint of industry chain

In addition to high frequency, speed, density, and dimensional stability, our research and development pursues more advanced, energy-saving as well as thinner and lighter substrate materials to meet the higher environmental standards in the future. Through continuous improvement on process technology and collaboration with upstream raw material suppliers and downstream FPC customers, we gradually reduce the resources and energy consumed per production unit, thereby mitigating the environmental impact and contributing to the sustainable development of a green earth.

We have incorporated environmental performance as one of our supplier assessment items. (Please refer to "2.4.2 Evaluation and audit" of this report for details.) We request and assist our suppliers in hazardous substance management, pollution prevention, energy saving, water conservation and waste reduction. Step by step, the green supply chain is taking shape after several years of efforts. In order to further reduce the environmental footprint of our products, the R&D Center has been testing and developing copper foil materials made from recycled copper, aiming to replace the use of virgin copper foil in the future. As for packaging materials, as suppliers stopped recycling tube cores, the recycling volume of this category dropped significantly in 2023. We make every effort to recover pallets, wooden boxes and packaging materials for repetitive use in the Company or by suppliers and customers to minimize waste.



#### 4.1.2 Environmental investments and benefits

Environmental expenditure totaled NT\$329,482 thousand in 2023, including audits on environmental system standards, pollution control, environmental monitoring, eco-education, sponsorship to eco-organizations, etc. We collaborate with impartial third-party assurance agencies and agencies engaging in recycling, professional waste disposal and environmental monitoring.

The purpose of Taiflex's environmental accounting system is to identify and measure the Company's environmental costs as well as to conduct benefit assessments and compile statistics on costs reduced or benefits generated as a result of environmental projects, thereby encouraging and promoting environmental projects with economic benefits. Economic benefit is calculated by estimating the potential cost savings from reductions in energy, water consumption and waste for carrying out the environmental projects plus the revenues from waste recycling and reuse. The environmental benefit amounted to NT\$63,312 thousand in 2023.

2023 Environmental Investments and Benefits						
Item	Description					
Environmental expenditures	<ul> <li>Pollution control (regulatory fees and charges: e.g., air pollution control fee, etc.)</li> <li>Eco-projects to reduce environmental burden (e.g., improvements on exhaust treatment system and application fees for operating permits)</li> <li>Industrial waste disposal charge</li> <li>Expenditure on measures to enhance the efficiency of wastewater treatment facilities</li> <li>Environmental management fee (maintenance and certification of ISO 14001 and 14064-1 management systems)</li> </ul>					
	Total spending: NT\$59,973 thousand					
Environmental benefits	<ul> <li>Savings on pollution control and reduction measures of NT\$19,329 thousand</li> <li>Savings on reduction, recycling and reuse of industrial waste of NT\$ 1,076 thousand</li> <li>Savings on resource recycling (recycling + copper foil + solvent) of NT\$42,907 thousand</li> </ul>					
	Total savings: NT\$63,312 thousand					
Improvements	1.Reduce air pollution (NOx, TSP, CO <sub>2</sub> )					
	Reduction in natural gas	238km³	Reduction in TSP	11kg		
	Reduction in NOx	381kg	Reduction in CO <sub>2</sub>	492,320kg		
	2.Cut down resource consumption (e.g., recycling and reuse of organic solvent waste)					
	Reduction in waste adhesive	91,100kg	Solvent recycled and reused	91,100kg		
	3.Improve the efficiency of control facilities (waste gas condensation)					
	4.Waste reuse					
	Recycled and reused		760,200kg			
Impact upon improvement	Reduce environmental impact by reducing energy consumption and improving equipment efficiency Reduce air pollutant emissions to mitigate environmental impact Continuous improvement to enhance the Company's competitiveness and meet the sustainable development goals					

# **4.2 Energy and Carbon Emission Management**

# **Material Topics: Green Energy and Net Zero**

#### **Main Reason**

With increasing global attention on the issue of global warming, countries are pushing renewable energy and netzero carbon emission regulations to mitigate climate risks. Enterprises that do not transition towards green energy and net-zero emissions may risk impacting their market competitiveness and brand value.

#### Effect and Impact

· Actual positive effect:

Economic: Improve equipment operational efficiency to save unnecessary electricity expenses.

Environmental: Reduce GHG such as  $CO_2$  from operating activities.

Social: Respond to policies and support green power industry development.

· Actual negative effect:

Economic: Additional personnel and resources are needed to upgrade the process facilities for a significant adjustment in energy structure.

· Potential positive effec:

Economic: The government has announced the standard of carbon fee for regulated industries. The Company's establishment of energy-saving goals helps mitigate the impact of future carbon taxes/fees on operating costs.

#### Policy and Strategy •

Taiflex Green Power was established for the generation and selling of electricity from renewables to steadily move towards net zero emissions by 2050. The functional teams under the Sustainable Development Committee would promote energy saving and carbon reduction practices.

#### Goal and Objective

- Short-term goals (2024):
  - 4% reduction in GHG Scope 1 emissions with 2021 being the base year
  - Use of renewable energy accounts for 1% of total electricity consumption
  - Cumulative installed solar capacity of 1,657 kW by Taiflex Green Power (subsidiary)
- Medium-term goals (2025-2027):
  - -12% reduction in GHG Scope 1 emissions with 2021 being the base year
  - Use of renewable energy accounts for 6% of total electricity consumption
  - Cumulative installed solar capacity of 2,949 kW by Taiflex Green Power (subsidiary); and biomass energy capacity of 280 kW
- Long-term goals (2028~):
  - >27% reduction in GHG Scope 1 emissions with 2021 being the base year
  - Use of renewable energy accounts for 10% of total electricity consumption
- Cumulative installed solar capacity of 3,379 kW by Taiflex Green Power (subsidiary); and biomass energy capacity of 280 kW

#### Management Assessment Mechanism

- The Sustainability Development Center evaluates the feasibility of departments' energy-saving initiatives, establishes management objectives within each business scope, and then, through the Sustainable Development Committee, consolidates the implementation progress of functional teams to report the achievements to the Board of Directors at least twice a year.
- In 2023, we adopted an online carbon management system to optimize data management and information flow, and ensure the transparency of relevant data sources.

#### 2023 Goal and Achievement

- $\cdot$  4% reduction in GHG Scope 1 emissions with 2021 being the base year
  - → ♦ Achieved. GHG Scope 1 emissions decreased by 23.05% in 2023 compared to 2021.
- Use of renewable energy accounts for 1% of total electricity consumption
- → Implementation status: At the end of 2023, we participated in the auction for small-amount green power purchases organized by Taipower and won the bid for 10,000 kWh, which will be used by Taiflex 2 in 2024.
- → ☑ Unachieved. Taiflex Green Power (subsidiary) has installed 4% solar power capacity, and the green power may be supplied to Taiflex depending on its operation. It has a cumulative installed solar capacity of 1.657 kW.
- → 🛮 Unachieved. The installed capacity of Taiflex Green Power totaled 646.1 kW in 2023.

#### → Prevention or Remedy Measure ∘

The Sustainable Development Center collects external climate information (regulations and trends) on an ongoing basis and provides the information along with the progress report of internal carbon reduction efforts summarized by the Sustainable Development Committee to the Board of Directors to evaluate the effectiveness of energy-saving targets and strategies.



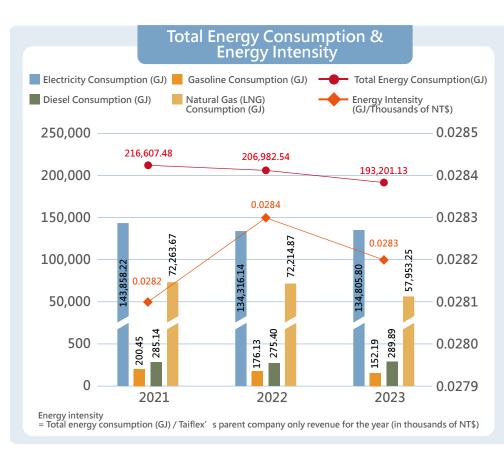


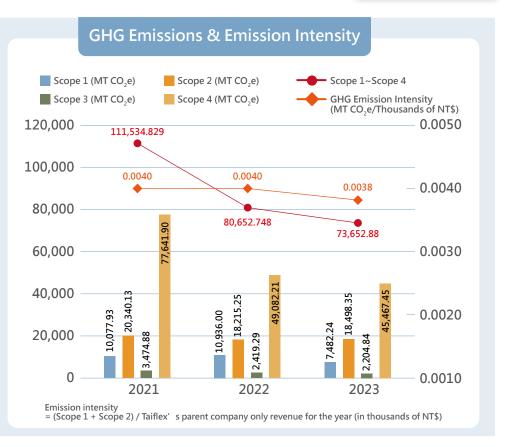
Energy and GHG inventory

In recent years, climate issues have become a prominent international concern. From governments to private enterprises, all sectors are striving for the goal of net zero by 2050. Global consumer electronics brands have gradually proposed to achieve 100% carbon neutral supply chain by 2030. Although we are not a direct supplier to the brand, we still actively map out our carbon reduction goals so as to jointly contribute in cooling down the planet. Since 2022, we have implemented the ISO 14064-1:2018 GHG inventory system and obtained a third-party verification statement. In 2023, we further enhanced our carbon emission management by introducing an information-based carbon emission management platform, thereby strengthening our monitoring and management effectiveness of carbon emissions.

To effectively reduce carbon emissions, we introduce new equipment to improve our processes and proactively adjust our internal energy structure. In 2023, electricity and natural gas accounted for 69.77% and 30.00% of our primary sources of energy consumption, respectively, and the total energy consumption had a year-overyear decrease of 6.66%. However, due to a decrease in revenue, the energy intensity in 2023 dropped only slightly compared to 2022, while the carbon intensity exhibited a greater degree of decrease in comparison. Please refer to Appendix I ESG Information - Environmental Data of this report for detailed information on energy consumption and carbon emissions for the past three years.

Note:The inventory scope aligns with the disclosure scope presented in this report (including Taiflex 1, 2, 3 and 5, and excluding the Linkou office and subsidiaries).

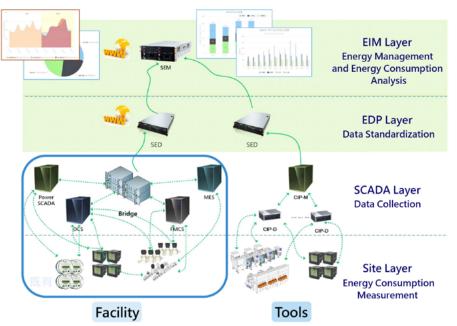






# Energy conservation & carbon reduction measures

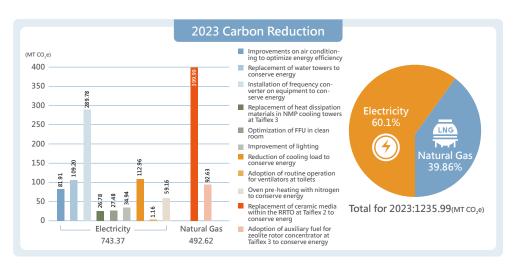
In response to the national energy saving goal, we continue to invest in various energy saving measures. In 2021, the ISO 50001 Energy Management System Platform was established at our Kaohsiung factory in Taiwan. Through the e-energy management platform, the Company can implement comprehensive energy inventory and set various performance indicators as well as the best power consumption strategy for equipment to ensure the optimal use of energy, thereby achieving the targets of carbon emission management.



In 2023, we implemented 29 energy-saving projects under ISO 50001. These projects were categorized into 11 types, with 9 of them focused on electricity-saving and achieved a saving of 1,504,834 kWh, exceeding the annual target of 1% stipulated in the Energy Administration Act. The remaining 2 types were extensions of projects initiated in 2022, focusing on equipment replacement and updates. These projects saved 237,649 m³ of natural gas along with a reduction in the use of synthetic adhesives containing VOCs. Of the 11 types of projects, the ones with greater energy-saving and carbon-reduction benefits achieved a reduction of 1,236.00 MT of CO<sub>2</sub>e emissions, which was roughly equivalent to the annual carbon sequestration of 3.2 Daan Parks. Please refer to Appendix I ESG Information - Environmental Data of this report for detailed information on energy-saving action plans and the associated carbon reduction benefits.



Note:According to the Council of Agriculture, each hectare of forest can sequester 15 MT of carbon dioxide per year. Therefore, Daan Park (25.8 hectares) can absorb 384.6 MT of carbon dioxide annually.



## Expand the use of renewable energy

On December 31, 2020, the Bureau of Energy, Ministry of Economic Affairs announced that major electricity users with contracted capacity of 5,000 kW or above are required to install renewable energy power generation equipment for 10% of their average chartered capacity in the previous year within five years, purchase renewable energy and certificates, or install energy storage facility in order to perform their obligations pursuant to the "Renewable Energy Development Act." The contracted capacity of our factories has yet to meet the threshold of major electricity users. Although we are not subject to the aforementioned regulations at this stage, we took actions in response to the government policy. We established Taiflex Green Power in March 2021 and installed PV facilities of 375.9 kW (generating 450,752 kWh of electricity per year) at Taiflex 2 in 2022. At the same time, we bought back the installed capacity of 271.2kW (generated 349,544 kWh of electricity per year) previously leased to other companies at Taiflex 5.

To achieve net zero emissions, we have set medium to long-term goals: the global vision of "10% renewable energy, low carbon emissions, and circular economy for waste by 2030" and "100% renewable energy, net zero emissions, and 100% circular economy by 2050." We adopt green building initiatives when enhancing energy efficiency and production at our Kaohsiung factories and as priorities for the design of our Thai factory. We also plan to sign a ten-year purchase agreement for green power certificates of 75 GWh, making carbon reduction our competitive edge. Furthermore, following assessment by the Sustainable Development Committee and approval by the Board of Directors, our subsidiary, Taiflex Green Power, will expand efforts on renewable energy installation and be dedicated to the operation of our green power facilities. In 2023, an additional investment of NT\$12,827 thousand to increase installed capacity by 271.2 kW was made in Taiflex 5.







# **Information-based Carbon Inventory System**

Taiflex continues to demonstrate ongoing efforts in sustainability initiatives. In 2023, we introduced an information-based carbon emission management platform to monitor and manage operational carbon emissions more effectively. This action embodies the Company's commitment to sustainable development and lays a solid foundation for our carbon reduction pathway.

The carbon emission management platform follows the ISO 14064-1 standard to organize GHG data within the organization. Transitioning from the previous offline data collection using Excel, we now have data collection units of various activities inputting data directly into the carbon emission system. Once the system automatically runs the calculations, comprehensive information such as the Company's total carbon emissions, carbon emission hotspots in factories, and categories are clearly presented. The implementation of this system significantly enhances the accuracy, transparency, and traceability of carbon inventory information.

During the implementation, Taiflex focuses on improving data resolution. By delving into data structure and recording factory carbon emissions on a monthly basis, the numbers can serve as more timely operational decision-making indicators. Linking supporting data with each record through the platform improves the clarity of supporting data and consequently the sources of emissions for traceability, making the system trustworthy and well-received by verification personnel. Source analysis of emissions and efficiency improvement of data collection provide decision-makers with more concrete data and significantly reduce the workload of the execution units.

We plan to extend the management system to each subgroup for implementation of a group-wide GHG inventory in order to effectively manage the carbon emissions of Group subsidiaries, and comply with the requirements for GHG inventory of groups and their subsidiaries outlined in the Sustainable Development Action Plans for TWSE- and TPEx-Listed Companies by the Financial Supervisory Commission. Furthermore, we would leverage more real-time data to assist the management in understanding carbon emissions within the organization and strengthen our carbon management efforts with carbon reduction projects of various departments, striving to achieve the Group's net zero goal by 2050 and become a global expert of environmentally friendly materials.





#### 4.3 Waste Reduction Actions

# **Material Topic: Air Pollution Emissions**

#### Main Reason

VOC emissions from our use of volatile organic solvents in production generate secondary pollutants such as NOx and TSP even after being treated by pollution control facilities. Failure to implement air pollution emission management could negatively impact the Company's image, resulting in an allocation of more resources and hindering our GHG reduction efforts. •

# Effect and Impact •

Actual positive effect:

Economic: Establish recycling systems and new processes for a direct reduction in the use of raw materials and fuels at the front end, which not only reduces pollutants at the back end, but also lowers production costs.

Environmental: Mitigate environmental impact through pollutant control and recycling systems.

Human rights: A favorable living environment for communities around our operations.

· Actual negative effect:

Economic: In addition to air pollution control fees levied by the government, more personnel and resources would be required for a further reduction of pollutants.

· Potential positive effec:

Economic: Carbon reduction is a long-term trend for the future, and the government has announced the standard of carbon fee for regulated industries. The Company's investment in air pollution control measures can also be preparation for carbon reduction goals in advance.

# Policy and Strategy

"Integrate environmental resources and accomplish circular economy as well as net zero targe" - The Company is committed to energy conservation, emissions reduction, circular economy and environmental sustainability. We are dedicated to the goals of net-zero emissions and net-zero GHG emissions.

# Goal and Objective

- Short-term goals (2024):
  - Natural gas consumption of air pollution control equipment down 10% from 2016
  - Volatile Organic Compound (VOC) emission per unit down 3% from the base year (2021)
  - VOC recovery rate up 1% compared to the base year (2021)
- Medium-term goals (2025-2027):
  - Natural gas consumption of air pollution control equipment down 20% from 2016
  - VOC emission per unit down 10% from the base year (2021)
  - VOC recovery rate up 5% compared to the base year (2021)

- Long-term goals (2028~):
  - Natural gas consumption of air pollution control equipment down 30% from 2016
  - VOC emission per unit down 30% from the base year (2021)
  - VOC recovery rate up 30% compared to the base year (2021)

Note: VOC recovery rate = Volume of organic solvents recovered / Volume of organic solvents purchased × 100%

# Management Assessment Mechanism

 We conduct ISO 14001 and ISO 14064-1 internal and external audits to ensure the proper functioning of the system.

#### → 2023 Goal and Achievement

- · Natural gas consumption of air pollution control equipment down 10% from 2016
- → ✓ Achieved. The natural gas consumption of air pollution control equipment at Taiflex 2 and 3 dropped 36% in 2023 compared to 2016.
- · Volatile Organic Compound (VOC) emission per unit down 3% from the base year (2021)
- → VOCs emissions dropped 22% in 2023 compared to the base year. The VOCs emission intensity was 3.84 kg/km² in 2023, down 6% compared to 3.62 kg/km² in the base year.
- $\cdot\;$  VOC recovery rate up 1% compared to the base year (2021)
  - → Achieved. The VOC recovery rate was 26.4% in 2023, up 1.9% from the 23.7% in 2021.

In 2023, the final results met the annual targets, with a total fuel savings of NT\$2,871 thousand and emission reductions of 492 MT of carbon dioxide, 381 kg of NOx, and 11 kg of TSP through the installation of environmental protection equipment.

# Prevention or Remedy Measure •

We have established internal management review procedures in accordance with ISO 14001 to assess the effectiveness of emission management through the PDCA cycle annually.



# **Material Topic: Waste**

#### Main Reason

Without proper waste management for hazardous industrial waste from our use of chemicals, such as organic solvents, in production, apart from possible penalties, it would hinder our GHG reduction efforts.

#### Effect and Impact •

· Actual positive effect:

Economic: Establish recycling systems and new processes for a direct reduction in the use of raw materials at the front end, which not only reduces waste at the back end, but also lowers production costs.

Environmental: Mitigate environmental impact through waste control.

Human rights: Prevent outsourced vendors from illegally disposing of waste and damaging the living environment of the public.

· Actual negative effect:

Economic: In addition to waste disposal fees, more personnel and resources are required to achieve further source reduction and reduce waste volume.

· Potential positive effec:

Economic: Carbon reduction and circular economy are long-term trends for the future. By investing in waste recycling, we are realizing our vision of a circular economy and enhancing our corporate image.

#### Policy and Strategy •-

"Integrate environmental resources and accomplish circular economy as well as net zero targe" - The Company is committed to energy conservation, emissions reduction, circular economy and environmental sustainability. We are dedicated to the goals of net-zero emissions and net-zero GHG emissions.

#### Goal and Objective

- Short-term goals (2024):
  - Waste diversion rate of 60% Waste diversion rate is defined as: (reclaim + reduction + recycling + reuse + waste energy recovery + anaerobic digestion + biofuel + composting) / total waste weight; where the percentage of waste energy recovery shall be less than 10%.
- Medium-term goals (2025-2027):
  - Waste diversion rate of 87%
- Long-term goal goals (2028~):
  - Waste diversion rate of 90%
  - Apply for UL2799 silver-level certification in 2030

#### Management Assessment Mechanism

 We conduct ISO14001 internal and external audits to ensure the proper functioning of the system.

#### 2023 Goal and Achievement

- Waste diversion rate of 60%
- $\rightarrow$  O Achieved. In 2023, we recycled 353 MT of NMP solvent and 148.2 MT of MEK solvent, achieving average recycling rates of 64.31% and 61.47% respectively.

#### → Prevention or Remedy Measure

We have established internal management review procedures in accordance with ISO 14001 to assess the effectiveness of waste management through the PDCA cycle annually.

#### Note:

Waste diversion rate is defined as: (reclaim + reduction + recycling + reuse + waste energy recovery + anaerobic digestion + biofuel + composting) / total waste weight; where the percentage of waste energy recovery shall be less than 10%.





#### 4.3.1 Source reduction

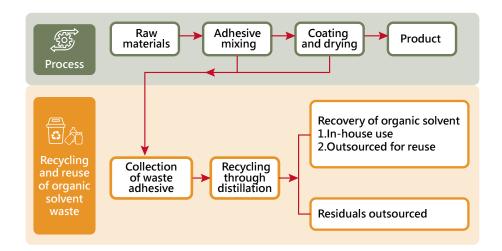
TAIFLEX SCIENTIFIC CO., LTD.

Taiflex is committed to zero waste. Besides promoting the concept of resource conservation to employees during daily operation, we focus on process enhancement for source reduction. As we reduce the consumption of resources and materials, we also minimize the pollutants generated. For air pollution, wastewater, and solid waste which we cannot eliminate completely at present, we establish pollution control facilities or engage qualified professional companies to handle the matters. We strive to reduce the environmental impact of our operations and seek the best solution in order to gradually achieve the ultimate goal of zero pollution.

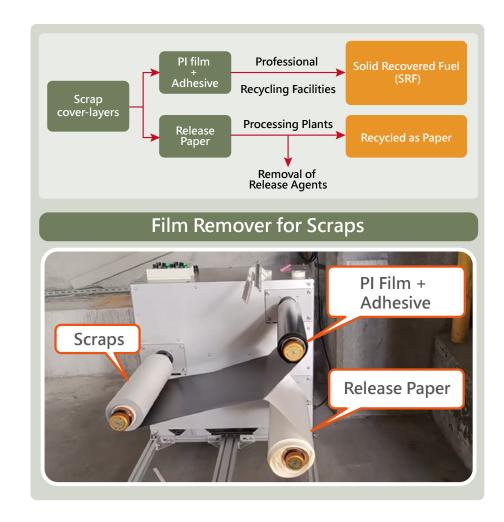
# Process material recovery

Taiflex has built a waste adhesive recycling system, which refines chemicals into industrial grade raw materials through distillation, purification and other related processes for them to be used at the production line. The recycling not only cuts down stationary pollution sources and exhaust emissions to stay environmentally friendly, but also reduces the volume of raw materials purchased to enhance the Company's competitiveness. Currently, the total recycling volumes of NMP and MEK have been increasing annually, with over 60% reused in production lines.

In 2023, we recycled 353 MT of NMP, a 15.33% increase compared to the 306.07 MT recycled in 2022. However, as the new processes have stricter raw materials requirements, much of the recycled NMP is now outsourced for reuse. Taiflex will invest funds by 2025 to implement purification system improvements, aiming at enhancing the recycling rate in the production line.



We insist on controlling the use of raw materials with the most optimal and feasible approaches, aiming to achieve a balance between environmental protection and economy with minimal waste and production costs. To reduce the heterogeneity of process scraps and improve the efficiency of waste recycling, the Manufacturing Center has developed in-house film removers in 2023 to peel off the release paper from the scrap cover-layers (PI film + adhesive + release paper). It is estimated that 50,000~70,000kg of release paper can be separately collected annually and recycled as papers. The remaining scraps (PI film+ adhesive) can then be further processed into solid recovered fuel (SRF), aligning with the government' s promotion of the eco-concept - "waste to energy."





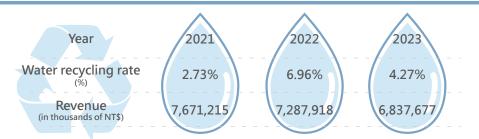




Taiflex is located in the Kaohsiung Qianzhen Technology Industrial Park, which has water supplied from the Fongshan Reservoir. According to the World Resources Institute's "Aqueduct Water Risk Atlas," the risk of water resources in Taiwan is rated as low to medium.

Since we adopt dry process, production line is not where most of the water is consumed. As tap water is mainly used as cooling water for air conditioning, followed by employee daily usage and firefighting purposes, water resource management focuses on the promotion of domestic water conservation, including the recycling of RO and wastewater from drinking fountains as cooling water for air conditioning, dual flush toilet, recycling of rainwater from the roof and condensed water from air conditioning system for watering plants, and adjustments on the conductivity of water discharged from the air conditioning systems. Please refer to Appendix I ESG Information - Environmental Data of this report for detailed information on water consumption in 2023.





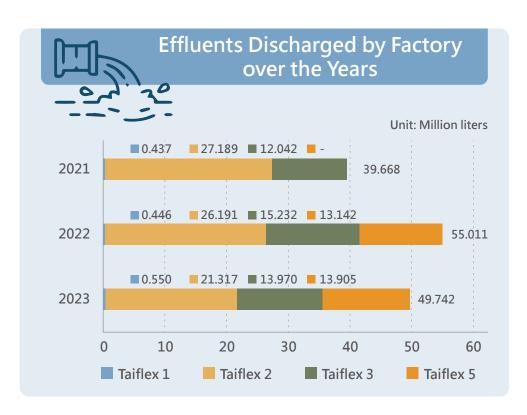
Water recycling rate = In-house water recycled / (water withdrawal + in-house water recycled) × 100%

#### **4.3.2 Pollution control**

# Effluents meeting the standard

Effluents from operation are mostly wastewater discharged from the cooling tower of factories and water used for domestic purposes, e.g., wash up or kitchen waste cleaning. Since they are discharged to sewers of the park, they would not affect the biodiversity in the area.

Our etching laboratory in Taiflex 1 would discharge etching wastewater; thus, a wastewater treatment system was installed. The system is equipped with pH and flow meters connected to the central monitoring system for constant online monitoring to ensure the effluents discharged fully meet the standards set by the Processing Zone. Testing at the outfalls is conducted twice every year and we also carry out monthly self-testing. The results have not only met the discharge standards but also stayed far below the regulatory requirements. The Company has never been penalized by the competent authorities since operation. Please refer to Appendix I ESG Information - Environmental Data of this report for detailed information on effluents quality tests.







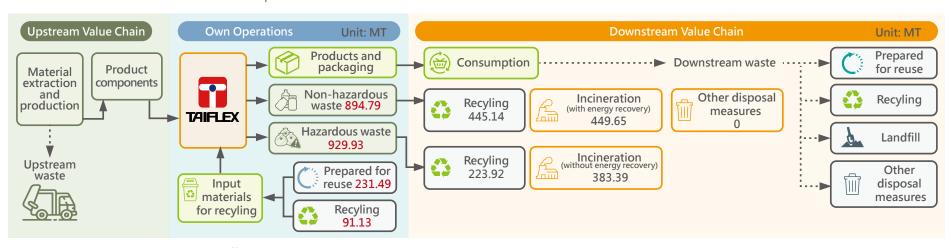
Our air pollution control facilities adopt regulatory-compliant technologies available and comply with the "Air Pollution Control Act" as well as the "Air Pollutant Emission Standards of Stationary Pollution Sources." The air pollution control facilities of each factory operate 24 hours a day and 350 days a year. Furthermore, we would engage a third-party certification body to conduct tests on the emission concentration of various air pollutants annually. The results have shown that our emissions have complied with relevant standards and stayed far below the threshold. Please refer to Appendix I ESG Information - Environmental Data of this report for statistics from the air pollution tests.

As natural gas combustion generates NOx emissions, and the Company mainly uses natural gas as fuel for exhaust gas treatment equipment, apart from reducing the total amount of exhaust gases (organic solvents) to be treated through raw material recovery, we continually optimize related equipment. Following the introduction of zeolite rotor concentrator at Taiflex 3 in 2022, there was a 30% reduction in natural gas consumption by the RTO compared to the base year (2021). Additionally, the replacement of ceramic media within the RRTO at Taiflex 2 in 2023 lowered natural gas consumption by approximately 25% compared to the base year, and further minimized NOx emissions. Besides, some of refrigeration equipment within the factory still use R22 refrigerant, and we continue to use GHG emission rate to calculate its emission volume. We will opt for models using environmentally friendly refrigerant in the future and gradually replace these older models. The amount of R22 refrigerant emissions in 2023 were 0.0046 MT.

#### Waste treatment

Synthesis and coating are the key processes of Taiflex. The production of FCCL generates hazardous solvent waste, which is harmful to the environment if not properly handled. Thus, it is collected in 53-gallon steel drums by the synthesis, front-end and back-end departments, and then purified for reuse through the recovery facilities to effectively reduce the outsourced volume and the associated treatment costs as well as realize circular economy (please refer to 4.3.1 Source reduction for details).

In addition to the reuse of NMP and MEK within the factories, we have started on-site adhesive washing due to the adoption of zero-waste policy in 2023. All other waste is treated off-site. Please refer to Appendix I ESG Information - Environmental Data of this report for detailed statistics.



We attach great importance to both on-site and off-site waste management. Operations such as terminal storage, removal, and reduction are centrally managed by the Environmental Sustainability Division. We continuously promote the concept of reuse internally and strive to recycle all reusable waste as well as improve resource efficiency to reduce environmental burden. Waste that cannot be reused are handled by third-party waste management professionals certified by the Environmental Protection Administration, and we conduct audits from time to time to ensure waste has been properly treated and to prevent environmental pollution due to negligence or violation of laws.

We stress the importance of waste recycling and detoxification with processes carried out in accordance with the Company's ISO 14001 Waste Disposal Management Standard (EI-PD-06), the "Waste Disposal Act" and the "Regulations Governing Determination of Reasonable Due Care Obligations of Enterprises Commissioning Waste Clearance." Furthermore, we work toward the goals of localization, decentralization, and reclamation. The overall waste diversion rate (recycling rate) was 54% in 2023. With the addition of 25% from incineration with energy recovery, the rate was approximately 79%, and there was no leakage in 2023.