Environmental and Sustainable Development

1. Environmental Polices and Management

2. Climate Change and Carbon Management

3. Water Management

4. Waste Management

5. Air Pollution Management

Environmental and Sustainable Development

1. Environmental policy and management objectives

In order to attach importance to environmental protection and sustainable corporate development, the company promises to fulfill its responsibilities for corporate sustainable development, promote environmental awareness and implement corporate environmental protection work, and formulate environmental management policies to protect the global environment on which we depend and make it more sustainable. People in modern times and future generations will enjoy healthier and happier lives, and create a society where a better human life is achievable.

The company's environmental management system is established based on the company's environmental policy and the ISO 14001:2015 international standard as its main structure, and also considers the impact of the company's organizational activities, products, and services on the environment.

Environmental policy
1. Implement environmental management and comply with regulatory requirements.
2. Promote energy conservation and waste reduction to prevent environmental pollution.
3. Strengthen safety and health, and protect the environment.
4. Committed to continuous improvement and creating a quality environment.

Its environmental management system requirements are mainly to standardize the company's operations, including raw materials, processes, products, services and waste (or pollutant) management, to effectively manage any negative impacts or non-compliance that may have on the environment. The company's factories are in compliance with local regulations and there are no environmental violations in 2022.

Eris's short, medium and long-term performance and goals for energy conservation, carbon reduction, waste reduction and green energy since 2021

Category	2021 benchmark	2022 Achievements	2024 (Short distance)	2030 (Medium distance)	2040年 (Long distance)	SDGs Corresponding items
Save electricity (Thousand degrees/KK)	13.1	11.8	12.7 (Reduce 3%)	11.8 (Reduce 10%)	10.5 (Reduce 20%)	13 氣候行動
Save water (ton/piece)	0.38	0.34	0.37 (Reduce 3%)	0.34 (Reduce 10%)	0.3 (Reduce 20%)	6 清潔飲水與衛生設施
Waste reduction (ton/KK)	0.036	0.002	0.035 (Reduce 3%)	0.032 (Reduce 10%)	0.028 (Reduce 20%)	12 永續的消費與生產模式
Green energy (degree/year)	0	0	198,560 (Usage amount1%)	1,063,950 (Usage amount5%)	2,127,900 (Usage amount10%)	13 氣候行動

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2. Climate change risks and carbon management

Climate change and global warming are challenges that the global community must face squarely. Physical risks such as floods, droughts, heavy rains, rising sea levels, and wildfires caused by extreme climate will pose serious threats to human life and property in the foreseeable future. Climate change has inevitably impacted human daily life and Economic activity. As a corporate citizen, Eris continues to improve climate resilience through risk analysis, controlling greenhouse gas emissions and taking specific actions to face the challenges of future climate issues and strive to move towards a low-carbon and sustainable home. At the same time, Eris responded to the international carbon reduction trend and referred to the "Task Force on Climate-related Financial Disclosure (TCFD)" issued by the Financial Stability Board (FSB) as an enterprise facing As for the framework of climate change issue management and information disclosure, the management mechanism, response measures and implementation status are further explained below.

2.1 TCFD disclosure structure and German micro management practices

Governance	• In order to deepen climate governance, Eris uses the board of directors as the highest supervisory unit on climate issues, coordinating the overall climate strategy and supervising the implementation of climate-related risk management and key performance by senior managers. Every year, through comprehensive assessment and analysis of various risk scenarios, including climate, we develop response and adaptation strategies to ensure that climate issues are included in the perspective of senior management and managed prudently. • The corporate governance director serves as the convener, and the members are composed of heads and representatives of various departments and business units. Its execution work is that the sustainable integration working group is responsible for promoting company policies and related work plans, developing adaptation strategies and action plans, and regularly reporting implementation results to the board of directors.
Strategy	• The company defines the short term as the next 3 years, the medium term as the next 10 years, and the long term as the next 10 years or more. • Analyze the impact and contribution of climate change risks and opportunities to operations based on the TCFD framework. • Conduct climate risk analysis based on different scenarios, and conduct physical scenario assessment based on the RCP8.5 high carbon emission scenario of the AR5 assessment report released by the IPCC.
Risk Management	• Identify the policies, regulations, market and technological changes, goodwill and substantive risks that may arise under different scenarios and conduct risk and opportunity analysis respectively. • Relevant departments participate in discussions to plan adjustments and mitigation strategies for major risks, and report the overall assessment results to the Risk Management Committee and the Board of Directors. • In the future, the supplier code of conduct will be revised to add requirements for disclosure of carbon inventory information.
Metrics and Goals	• Climate-related risk and opportunity assessment and management indicators such as water consumption, greenhouse gas emissions, and proportion of renewable energy use have been established. • We have started planning for next year's ISO 14064-1 organizational boundary carbon inventory and will entrust a third party to conduct data verification if necessary. In the future, we will expand the types of inventory from Category 3 to Category 6 every year to obtain complete carbon emission information. • Key climate target KPIs for 2030 such as greenhouse gases, renewable energy, and water reduction have been set.

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2.2 Climate change risk assessment and management

2.2.1 Climate Risk Assessment Management Process

In terms of process, the company refers to the TCFD framework to identify climate change risks and opportunities, and develops response measures and target plans, hoping to reduce the impact of climate change risks on corporate operations. For climate risk identification and assessment, the Sustainability Integration Working Group and the Environmental Security and Supply Chain Group refer to the TCFD climate-related financial disclosure recommendations and draw up a list of climate change risk topics through meeting discussions and one-on-one interviews. Then set the future climate scenario conditions, analyze the relevant risks faced by the future test through risk identification, conduct a qualitative or quantitative analysis of potential medium and high-risk projects, evaluate the degree of impact these risks may have on the financial aspect, and then Draw a climate change risk matrix based on "impact/correlation degree" and "possibility of occurrence/time" to complete the significance assessment analysis. For major climate risk issues, after evaluating existing climate adaptation measures, new response measures and adaptation plans will be proposed to address deficiencies for continuous improvement.

2.2.2 Climate scenario setting and impact analysis

In order to clarify the short, medium and long-term risks that climate change may cause, the company will conduct the second climate change risk assessment in 2022 with reference to the climate risk categories recommended by TCFD. Through setting future climate scenarios, the company will further analyze the possible risks that the company's future operations may face. related risks.

(1) Transformation risk: The company refers to the International Energy Agency (IEA WEO 2021) report and sets the future basic scenario as "global temperature rise of 1.5°C", with a time scale of 2030, and then evaluates the risks it may face under future climate scenarios based on the attributes of each risk event. risk.

(2) Physical risks: In order to cope with the most serious climate disaster that may occur in the future, refer to the RCP8.5 high carbon emission scenario of the AR5 assessment report released by the "Intergovernmental Panel Climate Change (IPCC)". Through the collection of disaster potential maps and related research data published by the National Disaster Prevention and Technology Center, three climate disaster scenarios such as "flooding", "drought" and "high temperature" were set, and based on the climate disaster " "Probability of Occurrence", "Potential Scale" and "Possible Occurrence Situations in the Factory" to assess the physical risks that may be faced under future climate scenarios.
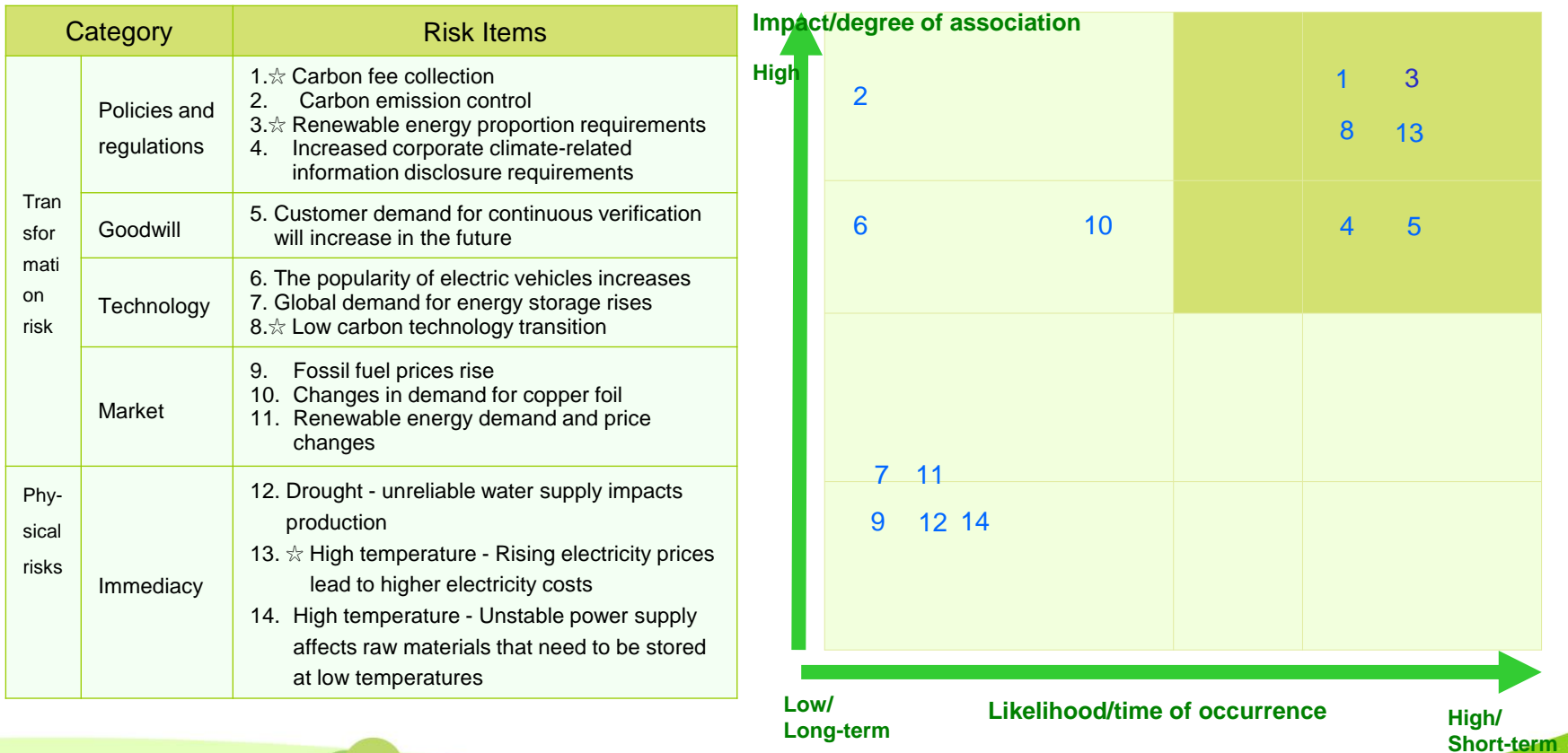
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2.2 Climate change risk assessment and management

2.2.3 Climate change major risk matrix

This assessment focused on 5 major risks from 14 climate risks. Among them, transformation risks include: "carbon fee collection", "renewable energy proportion requirements" and "low-carbon technology transformation"; the physical risk is "the impact of unstable water supply" "Influence on production" and "Increase in electricity prices resulting in increase in electricity costs", and identify opportunities for expansion of climate change from risks, formulate adjustment strategies and goals, and hope to reduce the negative impact that climate change may have on corporate operations. The identification results and countermeasures are described on the following page.

Category		Risk Items
Transformation risk	Policies and regulations	1.☆ Carbon fee collection 2. Carbon emission control 3.☆ Renewable energy proportion requirements 4. Increased corporate climate-related information disclosure requirements
	Goodwill	5. Customer demand for continuous verification will increase in the future
	Technology	6. The popularity of electric vehicles increases 7. Global demand for energy storage rises 8.☆ Low carbon technology transition
	Market	9. Fossil fuel prices rise 10. Changes in demand for copper foil 11. Renewable energy demand and price changes
Physical risks	Immediacy	12. Drought - unreliable water supply impacts production 13. ☆ High temperature - Rising electricity prices lead to higher electricity costs 14. High temperature - Unstable power supply affects raw materials that need to be stored at low temperatures

Impact/degree of association

High

2   1   3
                     8   13

6   10   4   5

7   11
9   12 14

Low/Long-term   **Likelihood/time of occurrence**   High/Short-term

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2.3 Climate change risks, opportunities and potential financial impacts

Category	climate change risks	Risk occurrence time	Impact	Countermeasures
Policy regulations	Carbon fee collection	Short term	• When carbon emissions exceed the collection threshold, carbon fees or other external taxes will be levied, which will increase the company's operating costs.	1) Continue to track the status and trends of legal amendments and assess possible impacts. Response strategies have been formulated to ensure that the company's operations comply with relevant legal requirements.
	Renewable energy proportion requirements	Short term	• Building renewable energy and hydrogen energy equipment, purchasing renewable energy certificates or paying fees will increase operating costs.	2) Understand carbon emissions through greenhouse gas inventory as a basis for evaluating energy-saving and carbon-reducing action plans.
technology	Low carbon technology transition	Short、Mid.、Long Term	• In order to achieve emission control targets, energy conservation and carbon reduction are required, such as the replacement of energy-consuming equipment or the purchase of carbon reduction equipment, which will increase operating costs. • Failure to keep pace with the times may affect customers' willingness to cooperate in the future.	3) Promote energy conservation and carbon reduction measures and replace energy-consuming equipment to improve energy efficiency.
Immediate	High temperature - Rising electricity prices lead to higher electricity costs	Short、Mid.、Long Term	• Rising temperatures have increased the demand for electricity in factories, resulting in higher electricity costs. • The rise in international fuel costs has led to an increase in electricity prices, which will increase the cost of electricity purchase.	4) We will continue to evaluate whether the rooftops in the factory are suitable for installing solar power generation equipment, and strive to increase the proportion of renewable energy use.
Category	Opportunities for climate change expansion		Impact	5) Develop and apply existing technologies in low-power, high-efficiency energy-saving products to comply with future market development trends.
Energy source	Expand the use of renewable energy		✓ Setting up renewable energy equipment can reduce the need for purchased electricity and reduce the cost of purchased electricity. ✓ The use of renewable energy increases the diversity of electricity sources and reduces the risk of increased electricity costs caused by rising international fuel prices.	6) Look for alternative sources of raw materials to mitigate the impact of rising costs.
toughness (resource efficiency)	Improve energy efficiency		✓ Improving energy efficiency can reduce greenhouse gas output and enhance the market competitiveness of the company's products. ✓ Replacing old, energy-consuming equipment can reduce electricity costs. ✓ Reducing greenhouse gas emissions reduces operating costs due to carbon fees.	7) Develop contingency guidelines for a continuous operations plan to facilitate the activation of a continuous operation mechanism when an emergency occurs to reduce the possibility of operational interruption and losses.
Market	Obtained sustainability-related management system certification		✓ In line with customers' expectations for sustainable development (ESG) and satisfying customer needs, we can create good cooperative relationships and win cooperation opportunities with potential new customers.	8) Gradually establish a green supply chain

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2.4 Mitigation and Adaptation to Climate Change
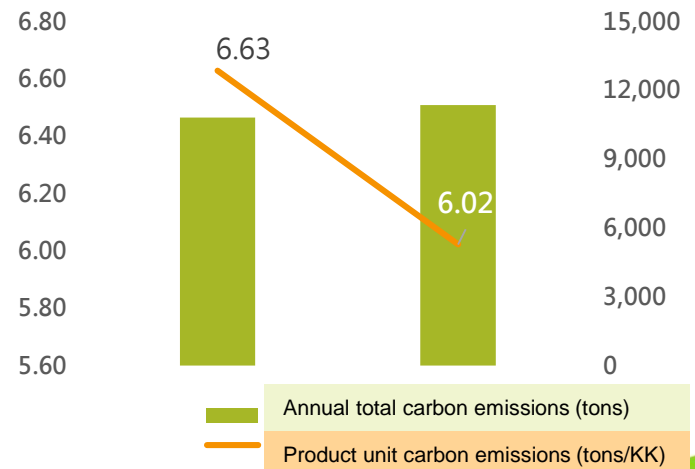
2.4.1 Greenhouse Gas Inventory

Greenhouse gas reduction is the main method to mitigate climate change and global warming, and greenhouse gas inventory can be used as a basis for evaluation and continuous improvement of reduction plans. In order to review the effectiveness of greenhouse gas emissions and energy reduction measures, Eris will conduct an independent inventory of greenhouse gas emissions statistics for the first time in 2021, regularly track and control the implementation of measures, and review specific results. The scope 1, 2 and 3 of Eris's greenhouse gas emissions are classified according to the greenhouse gas inventory work of the Environmental Protection Agency of the Executive Yuan:

➤ Category 1 refers to the direct emissions from each factory. The sources include fuel combustion used by stationary emission sources (for example: diesel used in emergency generators), fuel combustion used by mobile emission sources (for example: used by official vehicles, trucks and forklifts). Diesel), or other activities and fugitive emission sources (such as fire-fighting equipment, septic tanks and refrigerant spills). The types of greenhouse gas emissions are carbon dioxide, methane, nitrous oxide and hydrofluorocarbons.
➤ Category 2 is indirect emissions between purchased electricity, and the main greenhouse gas emissions are carbon dioxide.
➤ Category 3 is other indirect emissions, which refers to other indirect emissions caused by emissions from sources that are not owned or controlled (for example, due to leasing, outsourcing, employee commuting, etc.).

Eris had listed the issue of greenhouse gas emissions as the company's annual key work goal to commit to environmental protection and conservation to make the earth sustainable. The company will complete independent inspections of Scope 1, Scope 2 and Scope 3 in 2022. The results of the inspections are summarized in the following table:

Year	2021		2022	
Inventory classification category items	Emissions	Density	Emissions	Density
Category 1 (tons)	109.56	0.0533	70.36	0.0323
Category 2 (tons)	10,682.06	5.1930	11,268.75	5.1763
Category 3 (tons)	5.81	0.0028	5.81	0.0027
Annual total carbon emissions (tons)	10,797.42	5.2491	11,344.91	5.2113
Diode output (kk)	1,629.00	-	1,884.00	-
Product unit carbon emissions (tons/KK)	6.6283	-	6.0217	-

Greenhouse gas emissions analysis chart

Legend:
- Annual total carbon emissions (tons)
- Product unit carbon emissions (tons/KK)

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2.4 Climate change mitigation and adaptation

2.4.2 Energy management

Climate change poses an increasing threat to the environment, human survival and national security. In response to the global response to net-zero emissions, the government has formulated legal requirements and provided incentive programs to encourage enterprises to transform their energy sources and promote energy conservation policies to align with the international trend of green supply chains. Eris had manufacturing production lines in Taiwan, and the main energy used is mostly production equipment and factory facilities. In order to implement energy conservation and carbon reduction, Eris starts from three aspects, including: (1) Implementing replacement of high-efficiency equipment in the factory to improve energy Utilization rate; (2) Establish an energy management system and do a good job in monitoring and management; (3) Implement active energy conservation, starting from carbon reduction life measures, and implement energy conservation and carbon reduction into the company's daily operations to achieve the most efficient use of energy. state.

Equipment aspect	Systems aspect	Administrative aspect
•Inventory of energy-consuming equipment •Implement equipment inspection and maintenance •Eliminate energy-consuming equipment and replace them with high-efficiency equipment	•Build energy management system •Implement monitoring and verification •Leverage data to provide recommendations for optimal equipment operation	•Develop energy saving plans •Promote and promote the implementation of specific actions

2.4.3 In the administrative office area

Implement the following energy-saving solutions:

1. Elevator lobby: After get off work, all lights in the elevator lobby must be turned off.

2. In the corridors, library areas, leisure areas, etc. of the conference room, only necessary lighting lights are left during breaks, and other redundant lights are turned off first.

3. Energy-saving settings and night shutdown of computers and business machines. We also strengthen the publicity to encourage colleagues to turn off their personal computers and screens when they are off work, and fulfill their citizen's obligation to live an environmentally friendly and carbon-reducing life.

4. Promote colleagues to turn off lights to reduce energy consumption.

5. Use video conferencing systems to reduce carbon emissions and energy consumption caused by cross-factory transportation.

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2.4 Climate change mitigation and adaptation

2.4.4 In factory area

Saving energy not only helps reduce carbon emissions and the pollution sources caused by production to the environment, but also reduces the company's costs. Eris is committed to investing in energy-saving operations in the factory, improving equipment efficiency through various improvements, and establishing energy management The system uses the analysis of power usage to adjust power consumption and actively reduce unnecessary energy losses in operations. Since 2020, the power consumption of Eris's production unit products has been decreasing year by year, effectively reducing energy use, achieving energy conservation and carbon conservation, and fully protecting Responsible for the environment and move towards green production.

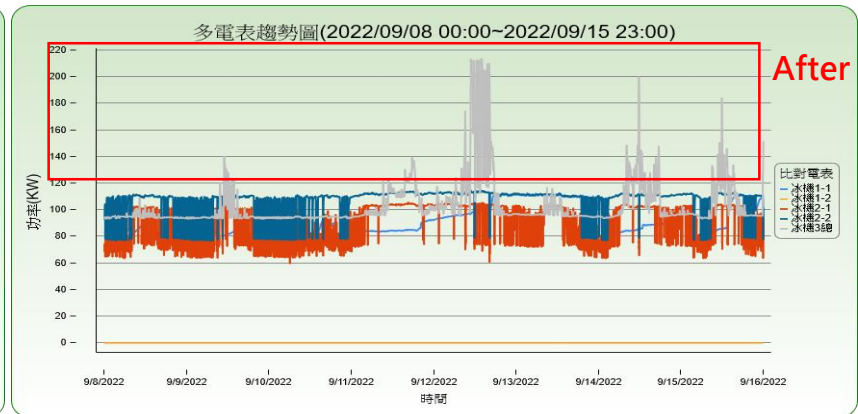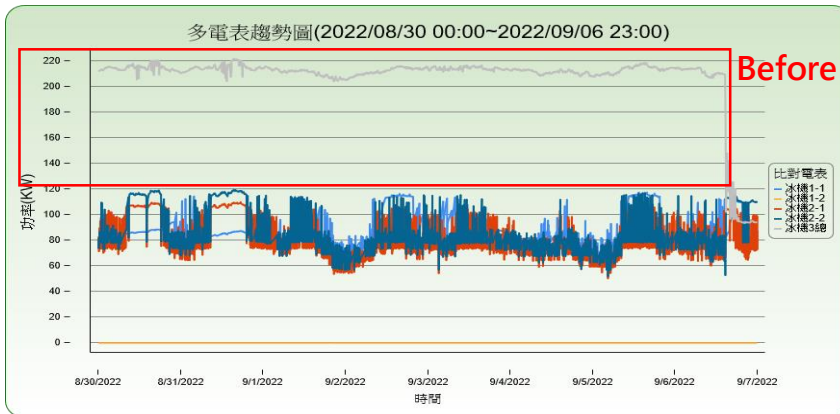| Item	2020	2021	2022
Electricity consumption (thousand kilowatt hours/year)	22,258	21,279	22,139
Diode output (kk)	1,634	1,629	1,884
Electricity consumption per unit product (kilowatt hour/KK)	13.6	13.1	11.8

Power consumption analysis chart
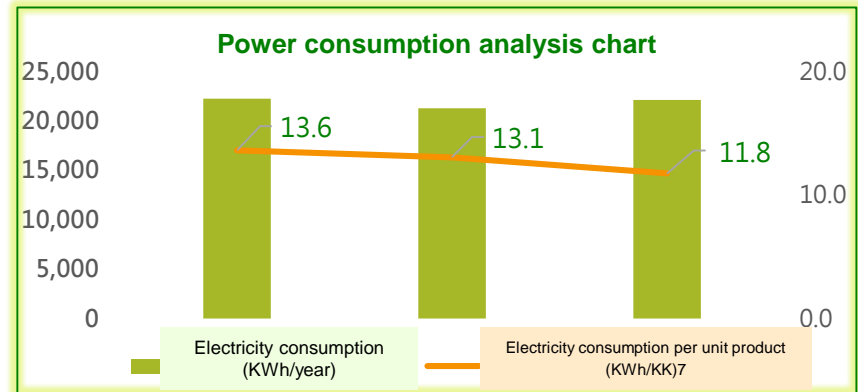
Year	Name of main energy saving plan	Save power(kWh/ year)	Carbon savings(ton / CO2e)
2020	Replacement of old air compressors	174,272	87.4
2020	Add air pressure system storage tank	162,000	81.3
2021	Add frequency conversion ice water host	290,832	145.9
2021	Cooling water tower energy-saving fan	25,053	12.5
2022	Establish standard procedures for ice water machine control	374,503	190.62
2022	Establish standard procedures for dryer control	1,130	0.57
2022	800RT cooling water tower construction	234,753	119.5
2022	Factory lighting replaced with LED lamps	12,693	6.46

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2022 Energy Saving Project - Construction of Ice and Water Machine Control Standard Procedure #1

多電表趨勢圖(2022/08/30 00:00~2022/09/06 23:00) — Before

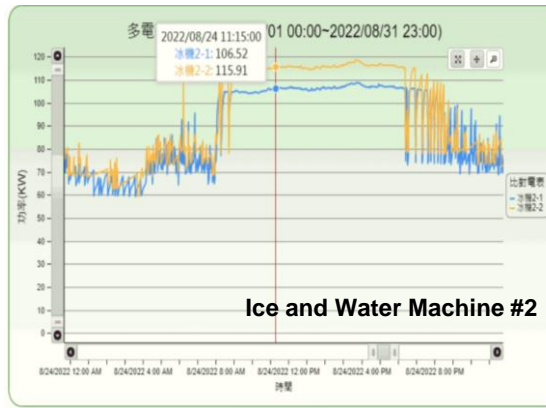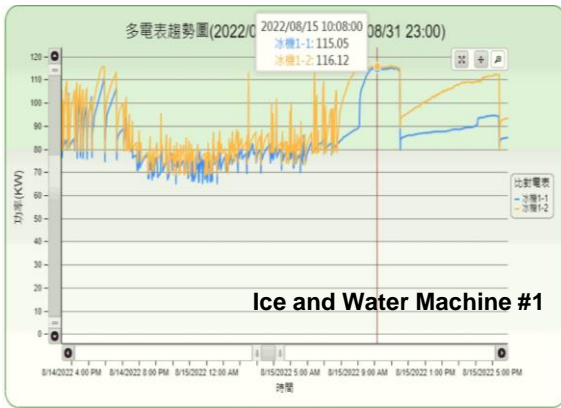多電表趨勢圖(2022/09/08 00:00~2022/09/15 23:00) — After

Purpose	Through the monitoring records of the energy management system, it can be seen that although there are ice water machines equipped with inverter models, the overall operation of the ice water machines is not in an ideal state. As shown in the picture above (before improvement), the No. 3 ice water inverter is almost always running at full load. On the contrary, other fixed frequency ice water machines are running partially, resulting in a state of poor efficiency. In view of the above situation, the system program monitoring data is used to adjust the equipment to reduce power consumption and save carbon.
Energy saving benefit analysis	Energy saving benefit calculation: 11,129.9 (before improvement) - 9,410.5 (after improvement) = 1,719.4kWh/day "Only presented in the summer months (June to September) when the ice water machine has a heavy load" Electricity savings: 1,719.4 kWh * 122 = 209,766.8 kWh/year **Reduce carbon emissions: 209,766.8 kWh*0.509=106.77 ton-CO2e**

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2022 Energy Saving Project - Construction of Ice and Water Machine Control Standard Procedure #2

Ice and Water Machine #1

Ice and Water Machine #2


Ice and Water Machine #3

Purpose	The full load efficiency of each chiller compressor can be estimated through the energy management system monitoring records (as shown above) the ranking is as follows: Among them, the maximum power consumption of three compressors is 10kW greater than the original rated power (101kW). and its period of use has exceeded 10 years, It may be caused by old equipment, resulting in poor efficiency. Use system monitoring data to adjust the ice water machine with CH2-1 as the priority operation. And keep operating at full load as much as possible to reduce power consumption and save carbon.	Efficiency ranking	Ice Machine NO.	Full load power value (kW)
		1	CH2-1	105
		2	CH-3	107
		3	CH1-1	115
		4	CH2-2	115
		5	CH1-2	116

Energy saving benefit analysis	Energy saving benefit calculation: 6,344.5kWh-5,886.9kWh=457.6kWh/day Electricity savings：457.6 kWh *360(day)=164,736kWh/year **Reduce carbon emissions：164,736kWh*0.509=83.85ton-CO_2e**

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2022 Energy Saving Project - Establish standard procedures for Dryer control

多電表趨勢圖(2022/09/15 00:00～2022/09/25 23:00)
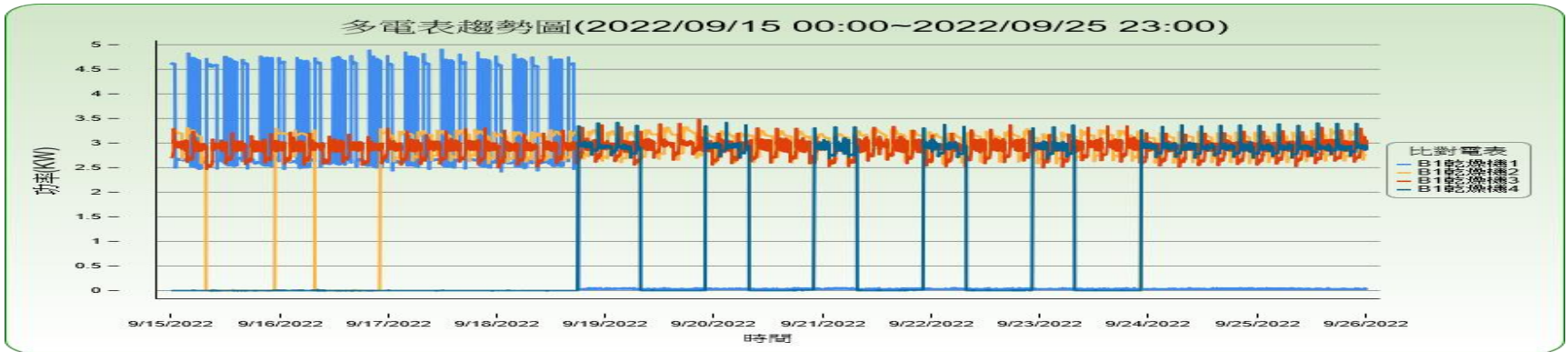
Purpose	Observed through the energy management system, it was found that Dryer No. 1 consumes relatively high power. Therefore, it is set to give priority to No. 2 dryer Start operation and use system program to monitor data Adjust equipment to save electricity and Achieve energy conservation and carbon reduction.

Before

Date \ Item	09/14	09/15	09/16	09/17	09/18	Total	Average (kWh/day)	Total (AVG)
Dryer 1	79.7	82.1	80.3	79.8	60.0	381.8	76.4	145.04
Dryer 3	68.6	68.7	68.4	69.0	68.6	343.4	68.7	

After

Date \ Item	09/19	09/20	09/21	09/22	09/23	Total	Average (kWh/day)	Total (AVG)
Dryer 2	73.9	72.7	72.7	72.8	72.9	364.9	73.0	141.9
Dryer 3	68.6	69.0	68.9	69.2	68.9	344.6	68.9	

Energy saving benefit analysis	Energy saving benefit calculation: 145.04 kWh-141.9 kWh=3.14 kWh/Day Electricity savings：3.14 kWh *360(day)=1,130.4 kWh/year **Reduce carbon emissions：1,130.4 kWh*0.509=0.57ton-CO2e**

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2022 Energy Saving Project - 800RT cooling water tower construction project
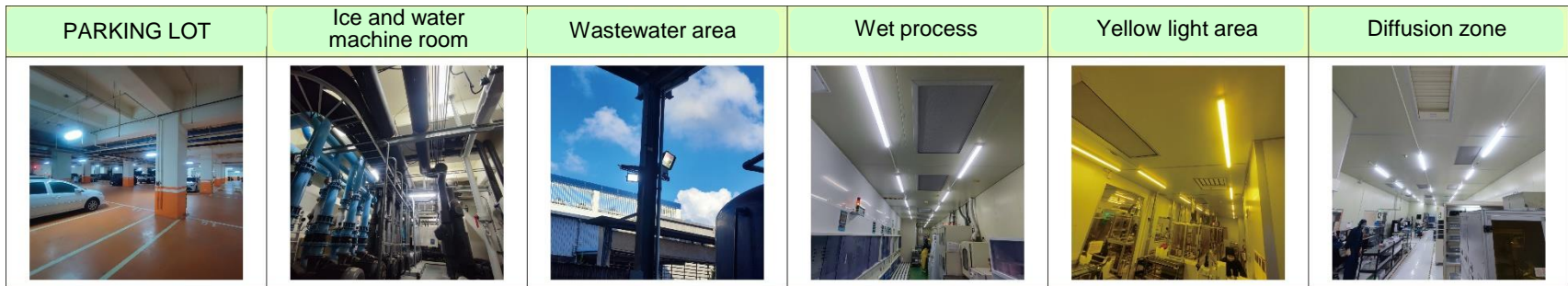

Purpose	1. Expand the 800-ton water tower to increase the cooling capacity and solve the problem of power consumption caused by the expansion of the production line. When the water cooling equipment is used, the water tower cannot effectively reduce the water temperature when running at full load. 2. The tower supports lowering the water temperature to facilitate cleaning and maintenance of other tanks to stabilize water quality and protect the water system units. 3. The heat dissipation area is increased by 50%, and it is estimated that the water temperature after heat dissipation can drop by 1 degree.
Energy saving benefit analysis	Energy saving benefit: 13% (ratio of air conditioner expansion power consumption) -6.5% (increase in power consumption) = 6.5% From January to December 2021, the average number of ice machines operating is 1.916; From January to December 2022, there will be an average of 2.041 ice machines operating, and the power consumption ratio = (2.041-1.916)/1.916*100%=6.5% Number of square feet to be expanded in 2022 = 2F (13M*23M*0.3025=90.45 square meters) + 3F (53M*16M*0.3025=256.5 square meters) = 347 square meters 1. Air conditioner expansion power consumption ratio=347/2,662*100%=13% 2. Ice machine202KW/units，202KW*2.041units*6.5%(power saving benefit)* 24時*365天=234,753kWh(power saving benefit) **Power saving benefit is 234,753kWh*0.509/1000=119.5ton-CO_2e**

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2022 Energy Saving Project - LED light replacement installation

PARKING LOT	Ice and water machine room	Wastewater area	Wet process	Yellow light area	Diffusion zone

Purpose	Taking advantage of the high power and low energy consumption characteristics of LED lamps, all T5 lamps in the factory were updated, and the illumination in each area was re-examined to achieve practical, energy-saving and low-carbon purposes.			
Energy saving benefit analysis	Indicator benefits	Pre-plan usage	Usage after improvement	Power saving benefit
	Energy used	T5 lamps : 35,202kWh/year	LED lamps : 22,509kWh/year	Replacement of high-efficiency lamps saves energy 12,693kWh/year (Power saving 23.7%)
	Annual carbon emissions	T5 lamps : 17.92 ton-CO_2e	LED lamps : 11.46 ton-CO_2e	Carbon reduction by replacing high-efficiency lamps 6.46 ton-CO_2e

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2022 Energy Saving Project - Setup energy management system

- ✓ Real-time monitoring of power consumption status of each unit
- ✓ Establish an early warning mechanism for electricity consumption to respond early to improve electricity safety
- ✓ A big data database is established to analyze the differences between units of the same type based on power consumption conditions. Improve equipment operating efficiency

System design goals
- ✓ Save electricity bills: rationalize pricing and optimize contract capacity
- ✓ Save energy: demand control, operation optimization
- ✓ Energy saving improvement: through data analysis, explore space for energy saving improvement

Actual electricity consumption

Electricity demand percentage

Contracted capacity with Taipower: 2,851KW

Electricity consumption in the current month and peak electricity consumption in each interval

Provides analysis of the usage of effective power (real power)/apparent power/reactive power (virtual power)

Set the alarm according to 80% of the panel's full capacity to avoid overloading.

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3. Water management

Water is an important natural resource for sustaining human activities and balancing ecology. Due to the pressure on water demand caused by global climate change and population growth, how to cope with the dilemma of water scarcity will be an important issue for future corporate operations. Eris upholds the spirit of environmental sustainability and uses 100% tap water and rainwater as water resources. There is no concern about geological subsidence caused by pumping groundwater. We strive to increase water resource utilization and wastewater recycling rates to reduce water usage.

3.1 Use of Water Resource

The company's water resources management policy is to implement water-saving measures to reduce water consumption per unit of product output and increase wastewater recovery rate. To achieve this goal, we design water-saving processes, recycle and reuse water resources, and combine them with high-efficiency water management to effectively reduce water consumption. Its management policy is explained as follows:

Management policy	Execution direction
Save facility water	1. Install water-saving devices on faucets or adjust water output to reduce water waste. 2. Strengthen maintenance of the air conditioning system circulation pipeline (water tower/drainage system). 3. Domestic sewage system, pipeline damage and leakage, comprehensive configuration of open pipe engineering. 4. If the cooling water tower is not shut down, clean the internal filter regularly.
Save production water	1. Setup a top-floor water tower water purification system: remove calcium and magnesium ions from the water to purify the water and extend the life and cleaning cycle of the air compressor coolers in the entire plant. 2. A water tower soft water system was added to purify the water quality of the water tower and extend the cleaning cycle of each condensation equipment. 3. The waterproof engineering configuration of the ultrapure water area allows every drop of water to be fully utilized.

**Cooling water recovery system**

Environmental and Sustainable Development

3.2 Wastewater Treatment and Resource Recycling

Eris will carry out a wafer process cutting wastewater recycling project in 2021. It can save 13% of water bills in a year. Through the water recycling system, the production water with a certain water quality in the production line is recycled and reused, mainly for large water consumption. This process allows the company's overall internal water cycle to reach a certain standard by recycling secondary water and then processing it, thereby reducing the supply of raw water and achieving the purpose of significantly reducing water resources.

The pure water regeneration time can also be extended to extend the pure water system regeneration time, which can reduce the number of regenerations and reduce the amount of wastewater discharge. The following is a comparative analysis of tap water and wastewater reduction from 2020 ~ 2022:

Items/year	2020	2021	2022
Tap water (tons)	113,064	113,408	101,170
Wastewater (tons)	91,032	93,299	90,135
Wafer output (pieces)	244,733	296,506	295,137
Unit water consumption (tons)	0.46	0.38	0.34
Unit wastewater output (ton/piece)	0.37	0.31	0.31
Annual total carbon emissions (tons)	17.19	18.26	16.29

Tap water/wastewater output analysis chart
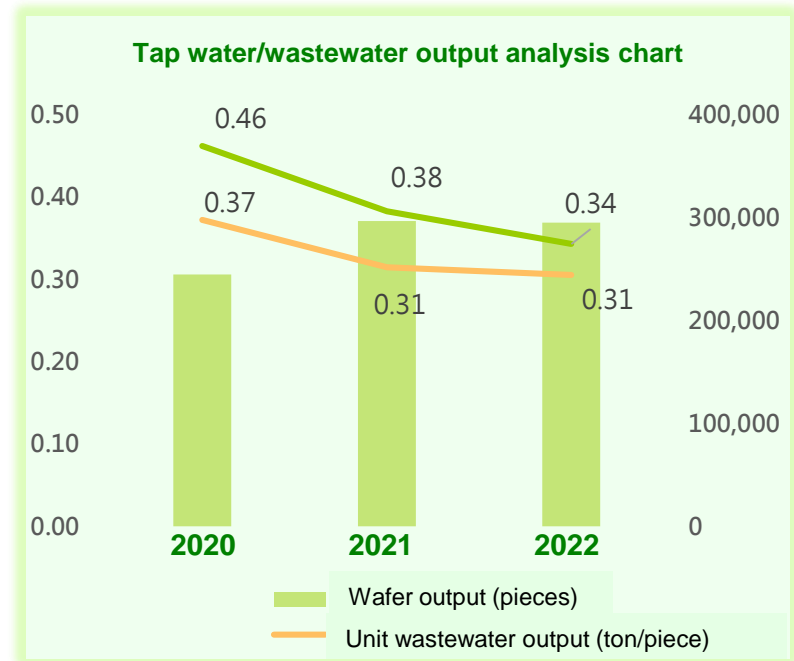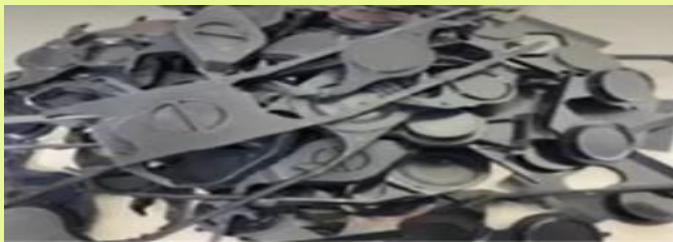
Environmental and Sustainable Development

4. Waste management

Eris Technology's waste management focuses on waste reduction during the manufacturing process, then reuse, and finally treatment or disposal. In order to effectively clean up waste, improve environmental sanitation, and achieve resource utilization, stabilization, and harmlessness of waste, the company strictly abides by various waste-related laws and regulations and thoroughly implements the waste management system. Our main waste comes from packaging materials for incoming components. The classification of waste and individual treatment measures are explained as follows:

Items	Implementation
General garbage	For example, domestic waste in the office: The general affairs department will send personnel to collect it and place it in a storage location specified by the building management committee, and the building management committee will outsource the processing.
Specific garbage	Such as vinyl waste, etc.: After being piled up to a certain amount in a specific area of the park according to regulations, the manufacturer will be notified for recycling.
Containers, empty barrels	For example, empty tubes of tin paste, empty barrels of solvents such as propane bromide and IPA are stacked in a specific area of the warehouse in accordance with regulations. After a certain amount is reached, the manufacturer is notified for recycling.
Recyclable waste	Material personnel are responsible for consulting resource recyclers for processing scraps, while R&D personnel are responsible for consulting resource recyclers for mechanical processing scrap metal. Waste paper boxes, iron cans, aluminum cans, glass cans, metal hardware, dry batteries, waste 3C, fluorescent tubes, PET bottles, aluminum foil packages, gas cans, pesticide cans, PVC cans, etc. are classified and recycled according to the park.
Hazardous industrial waste	If the laboratory waste liquid, waste oil, etc. reaches a certain amount, the relevant units or general affairs personnel will find qualified manufacturers to deal with it.
Outsourcing waste removal operations	Records of outsourced waste disposal must be kept for at least three years for future reference.

4.1 Waste film glue recycling

Eris is committed to selecting the most environmentally friendly production raw materials and avoiding secondary pollution. Therefore, we cooperate with Taiwan Cement to reuse the waste laminating glue produced from waste. The silica in the laminating glue can replace concrete. Based on the characteristics of some of the granular materials, we develop environmentally friendly bricks that can absorb moisture and convert waste into resources for recycling. The illustration is as follows:
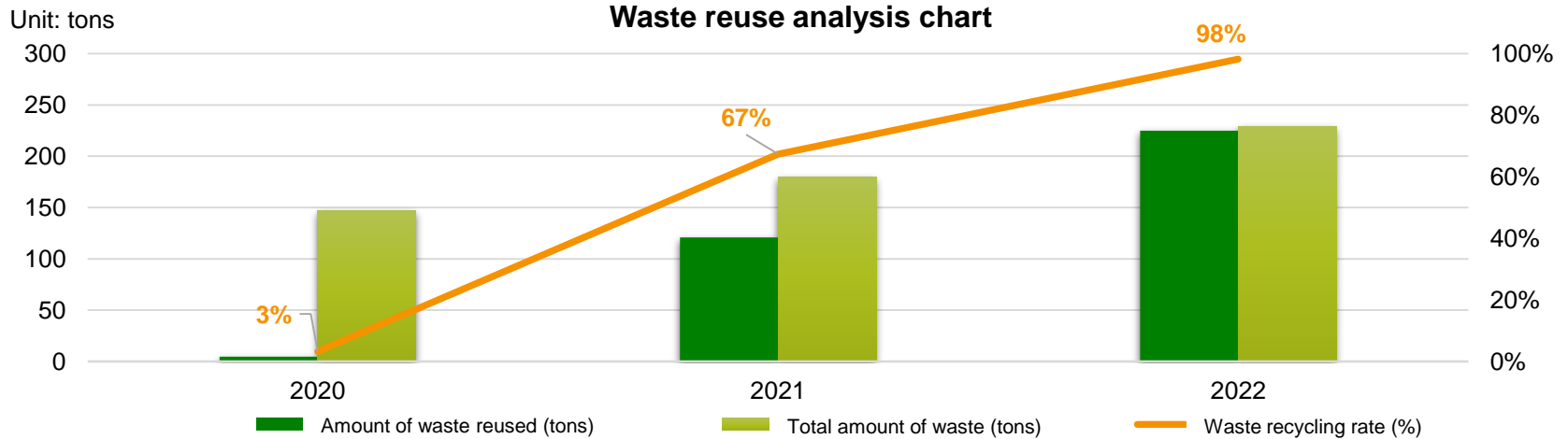
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4.2 Waste treatment and reuse in factory areas

The waste produced by the manufacturing process in Eris's factory is cleared and processed by qualified contractors. During the removal process, the removal route is confirmed through the GPS real-time tracking system. A total of 228.908 tons of waste was generated in 2022. The amount of waste reused increased by 104.02 tons compared with 2021, and the reuse rate accounted for 98%. The reuse rate increased by 31% compared with last year.

Item/Year	2020	2021	2022	Notes
Waste disposal volume (tons)	142.1335	58.5555	4.128	The processing volume is 54.427 tons lower than that in 2021
Amount of waste reused (tons)	4.72	120.76	224.78	Recycling volume increased by 104.02 tons compared with 2021
Total amount of waste (tons)	146.8535	179.3155	228.908	
Waste recycling rate (%)	3%	67%	98%	Recycling rate increased by 31% compared with 2021
Amount of waste per unit product (KK/ton)	0.087	0.036	0.002	There has been a downward trend year by year since 2020

Waste reuse analysis chart

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5. Air pollution management

Eris Technology's air pollution prevention strategy first focuses on rationalizing the process to reduce pollutants entering the waste, and secondly uses high-efficiency equipment to treat the pollutants in the waste. The final content of pollutants discharged into the atmosphere must be lower than or comply with government regulations. .In order to reduce the impact of exhaust gas emissions on the environment, the exhaust gas containing pollutants is sent to the central dust collection tower or activated carbon tower for treatment according to different attributes. The processing capabilities of the company's air pollution prevention equipment all comply with the "stationary pollution source air pollution" Relevant provisions of "Pollution Control and Emission Standards for Semiconductor Manufacturing Industry". Moreover, Eris is promoting an air pollutant reduction project to modify the product manufacturing process to remove glacial acetic acid used in the wafer manufacturing process, thereby reducing air pollution emissions. The treatment measures are explained as follows:

Eliminate PR → Glacial acetic acid → Flush → Oven → Pickling → Flush → BOE

Eliminate PR → Flush → Oven → BOE
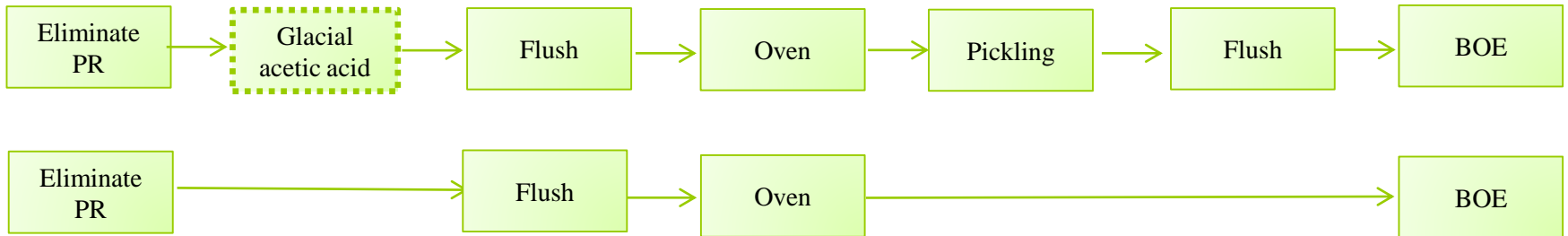
Schematic diagram of manufacturing process changes (pollutant reduction)

Environmental and Sustainable Development

2022 Award Execution Results

"National Corporate Environmental Protection Award" In order to encourage companies to fulfill their corporate social responsibilities and jointly promote environmental protection work, the Environmental Protection Department has conducted selection activities related to the Corporate Environmental Protection Award for 31 consecutive years, and a total of 638 companies have won the award. The number of participating entrepreneurs in the 4th session was the highest in history, 83. Eris Technology signed up for the selection for the first time and won the finalist award this year. Eris Technology promises to fulfill its corporate social responsibilities, is committed to promoting environmental and energy-saving operations, and actively invests in creating environmentally friendly production plants, including halogen-free liquid crystal materials, green chemical substitution of highly hazardous chemicals, and no use of harmful substances. In creating enterprises While maintaining value, we pursue more sustainable production and earth-friendly practices to achieve the goal of sustainable development.