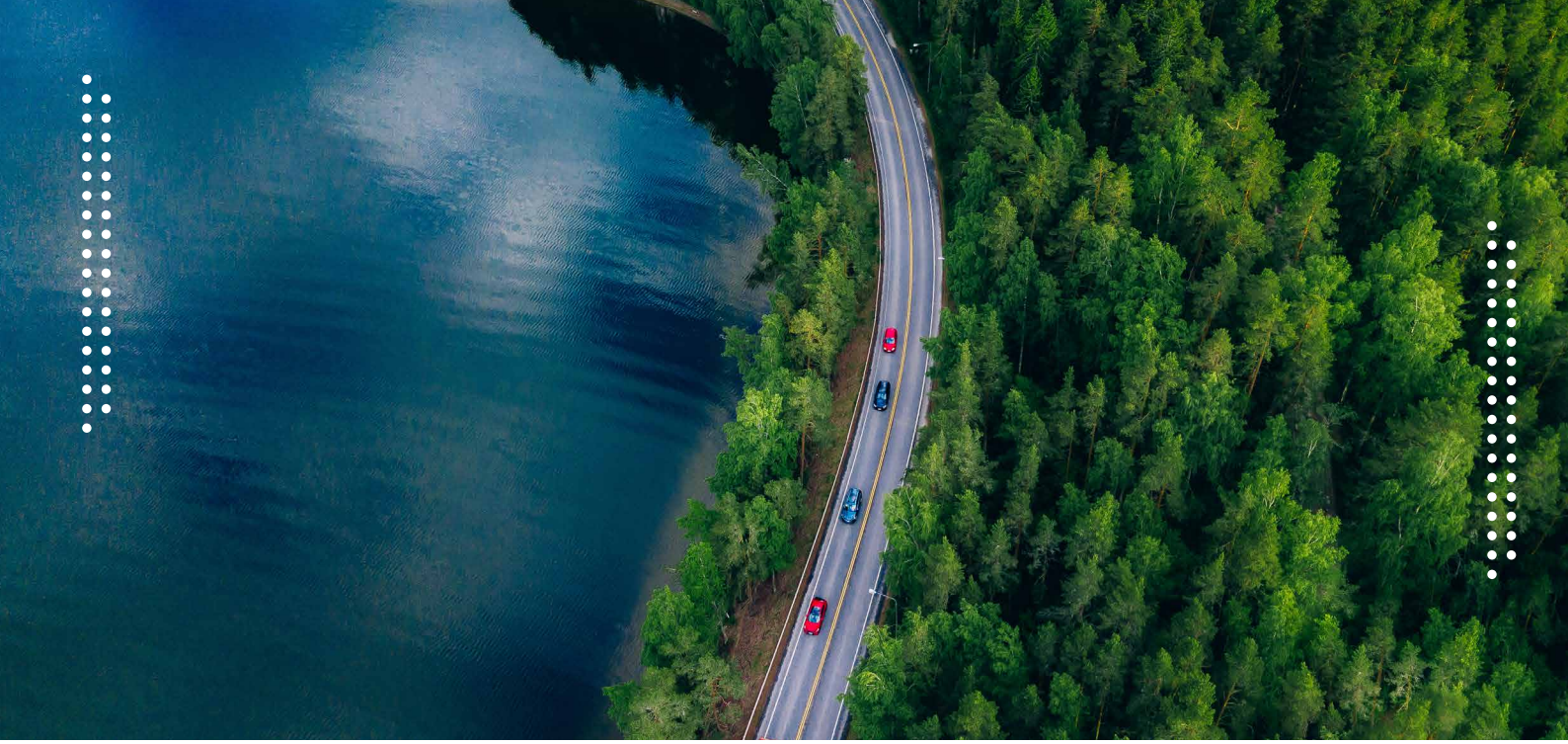
2023 Task Force on Climate Related Financial Disclosures (TCFD) Report



1. Foreword

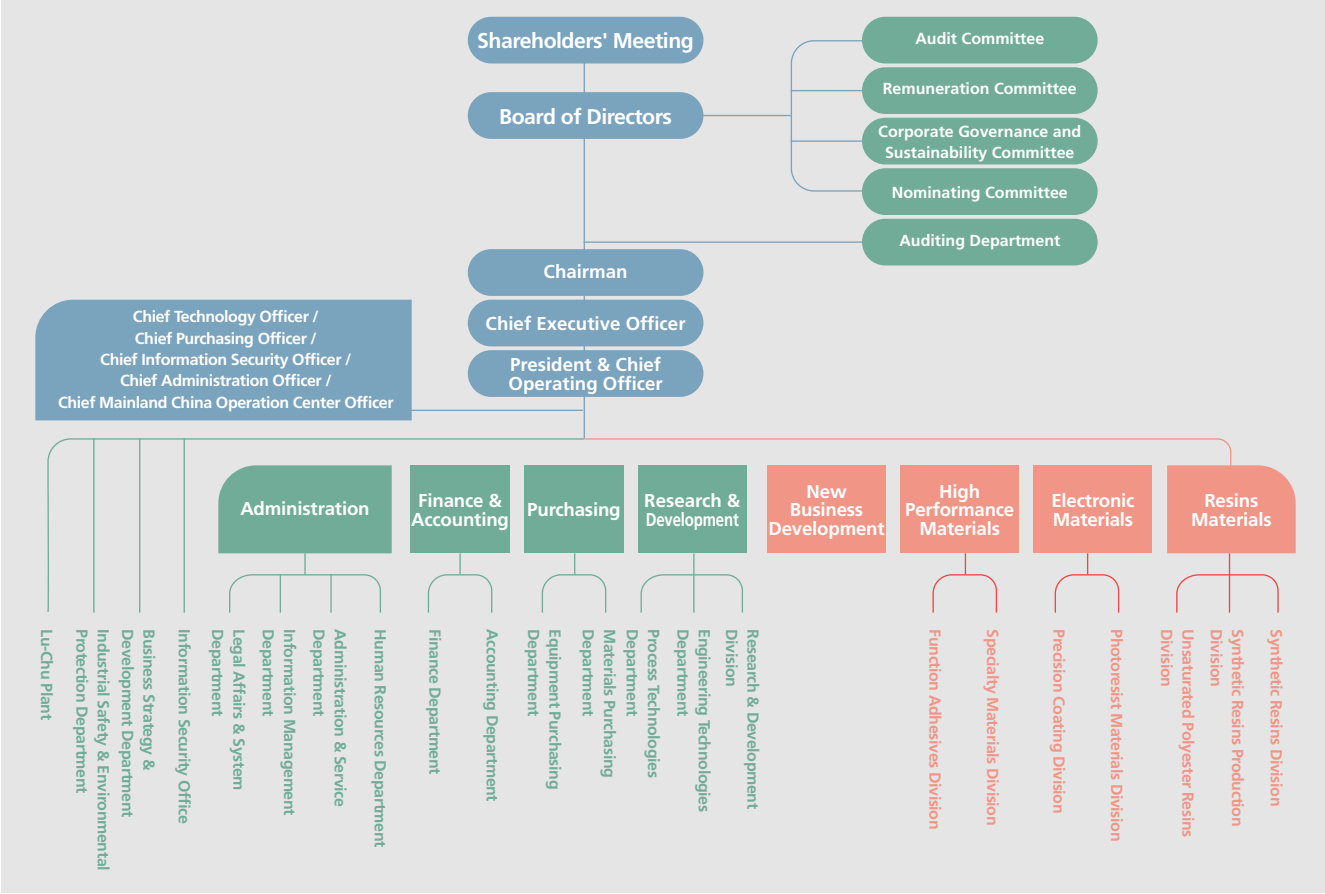
Climate change is an abnormal phenomenon caused by the emission of a large amount of greenhouse gases from human activities. This phenomenon poses risks to both the global community and businesses. These risks not only impact the environment but may also have direct or indirect effects on the operations and financial condition of businesses. For instance, risks associated with natural disasters could lead to facility damage, production interruptions, and supply chain disruptions. Legal and regulatory risks may arise due to the potential implementation of stricter environmental laws and regulations globally, placing operational pressure on businesses to adapt to climate change. Other risks include asset depreciation and damage to brand reputation. Therefore, implementing measures to address climate change is a critical factor for the sustainable development of businesses.

Eternal adheres to relevant ESG disclosure regulations and references the Task Force on Climate-Related Financial Disclosures (TCFD) report published by the Financial Stability Board (FSB). We follow its four core elements of climate-related financial disclosure: "Governance," "Strategy," "Risk Management," and "Metrics and Targets." By establishing a climate change governance framework, we identify and assess significant risks and opportunities that may impact our operations. We develop response strategies accordingly, integrating climate risks into corporate governance to improve corporate information transparency.

2. Governance

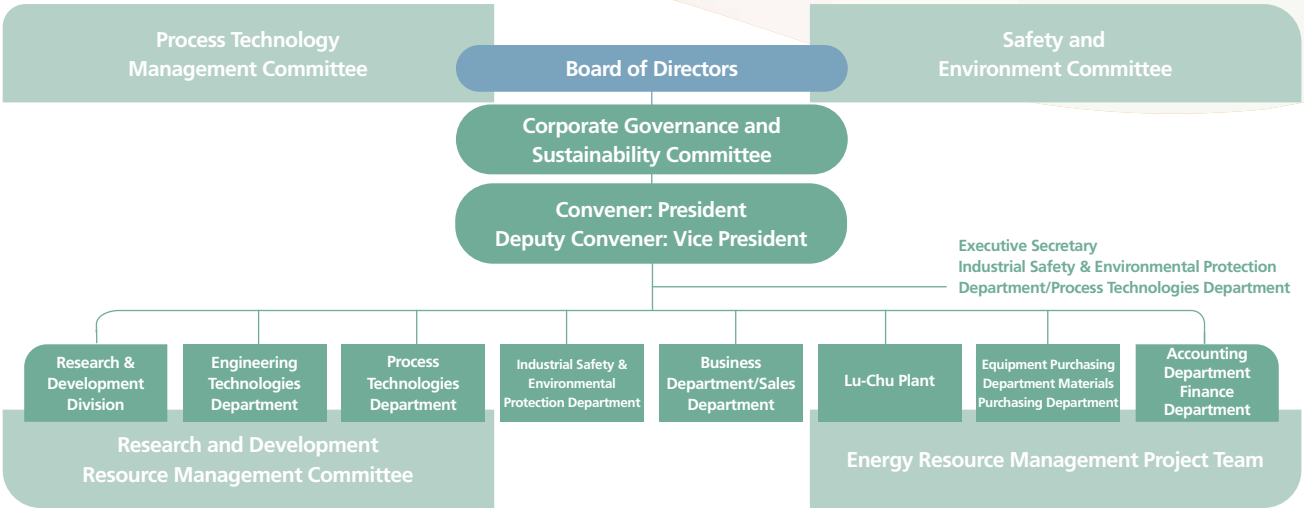
2.1 Eternal's Sustainable Governance Framework

Eternal established the "Corporate Governance and Corporate Social Responsibility Committee" approved by the Board of Directors in November 2021, and changed its name to the "Corporate Governance and Sustainable Development Committee" on March 11, 2022. This committee acts as the highest governing body for Environment (E), Social (S), and Governance (G) matters within the Company. It assists the Board of Directors in setting the Company's sustainable development goals and strategies, identifying sustainability issues that need to be addressed, developing action plans, tracking implementation results, and pushing for improvement. It holds at least one committee meeting every year. The committee is chaired by the Chairman, along with Independent Director, the general manager, and the Chief Administrative Officer serving as committee members. Also, as the highest supervisor of the executing unit, the general manager is responsible for supervising and coordinating with different units. Different units will promote different projects on E, S, G depending on their function and follow through on the results regularly.



Organizational Structure of the Corporate Governance and Sustainable Development Committee

Under the committee, a "Net Zero Emission Task Force" has been established. This task force systematically implements goals related to environmental friendliness and energy efficiency by leveraging the expertise and focus areas of various departments, including research and development, business units, carbon reduction technology, and client engagement. Simultaneously, the Company has initiated renewable energy investments and assessments. This involves large-scale installation of solar energy renewable energy power generation equipment and adopting a self-generated and self-consumed operating model. The goal is to gradually increase the Company's proportion of renewable energy usage. On the other hand, we have successfully implemented the ISO 50001:2018 Energy Management System in Taiwan. In line with the recently revised ISO 140641:2018 Greenhouse Gas Inventory Standard, we have reassessed our greenhouse gas emissions and utilized this data to enhance our carbon reduction strategies. We are actively seeking carbon offset credits and continuously expanding our research and development initiatives to foster sustainable growth. Additionally, we are progressively establishing a mechanism to evaluate the carbon footprint of our products from the source.



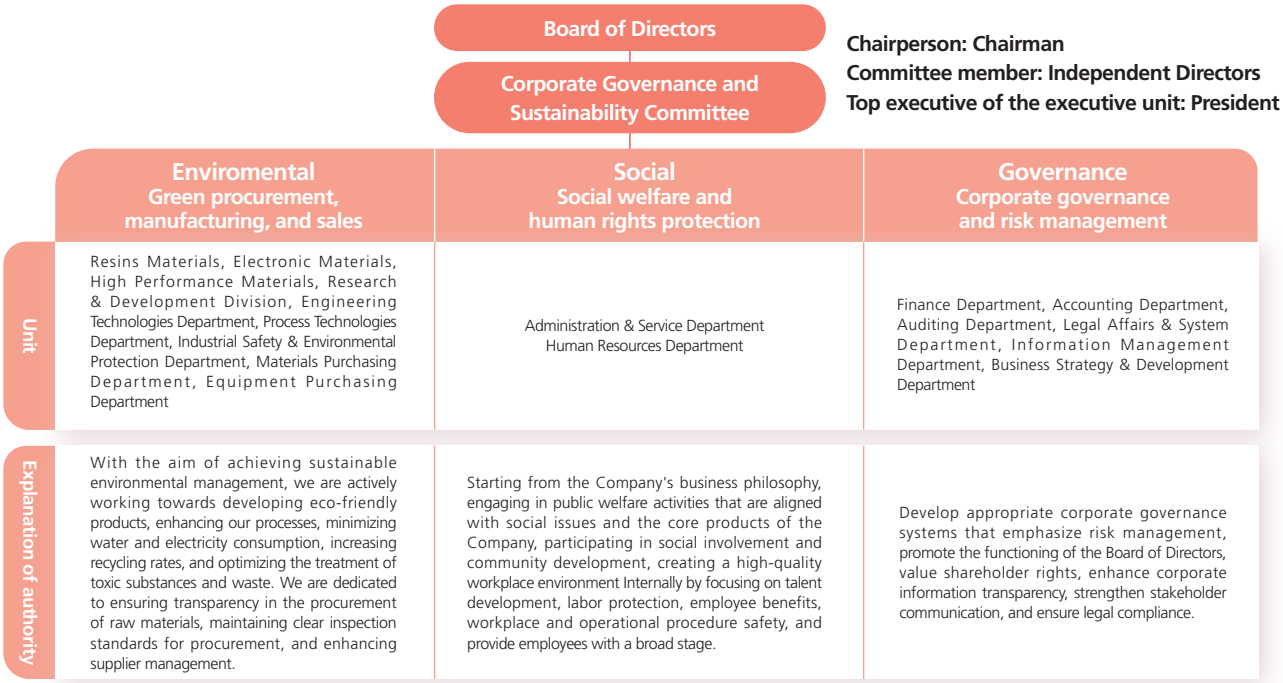
Organizational Structure of the Net Zero Emission Task Force

On the issue of globalization and climate change, as it may lead to impacts on business operations and risks to the environment, it is important to evaluate the impact of climate change and to assess the risks and transform them into opportunities for corporate social responsibility and sustainable operations. Starting in 2022, cross-departmental collaboration has been implemented to identify and assess climate risks, as well as calculate the impact of various scenarios on the Company's financial management. Response procedures will be formulated and mitigation action strategies will be implemented.

2.2 The Climate Governance Framework and Management Responsibilities of Eternal

In the face of issues and risks on climate change and protecting the Earth, Eternal adopts a proactive approach to closed-loop management and diligently fulfills its corporate social responsibility. In addition to the Corporate Governance and Sustainable Development Committee, various indicators for sustainable development and net zero carbon emissions are formulated and monitored by Net Zero Emission Task Force under the committee based on functional requirements. This includes various measures to improve net zero carbon emissions and climate mitigation. The management scope encompasses all global production bases, with the President serving as the highest-level leader. Climate change-related issues and progress are reviewed quarterly, and the Task Force reports the annual implementation results of climate change-related indicators directly to the Board of Directors.

According to the "Operating Strategy and Risk Assessment Operation Manual," Eternal conducts an annual inventory of climate change-related risks to its business operations. The committee regularly reports to the Board of Directors on the risks and the corresponding strategies for addressing climate change. The "Authorized Management Regulations - Additional Budget Amount" have been established to provide clear decision-making authority for capital expenditures and budget management. If the capital budget exceeds a certain amount, it must be reported to and approved by the Board of Directors.



Responsibilities of Corporate Governance and Sustainable Development Committee of Eternal

Supervision of climate change issues by the Board of Directors

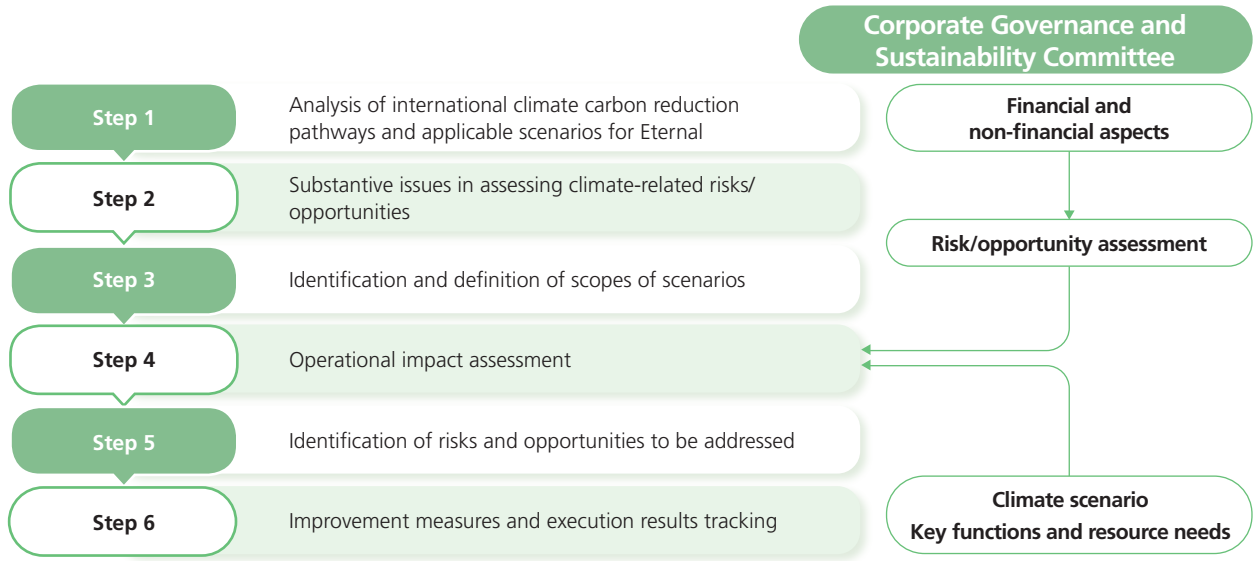
Meeting date	Meeting content	Resolutions
2023.03.10	Greenhouse gas emissions management performance report	Execution according to the plan
2023.05.11	Greenhouse gas emissions management performance report	Execution according to the plan
2023.08.11	Greenhouse gas emissions management performance report	Execution according to the plan
2023.08.11	2022 Sustainability Report and TCFD Report Review Case	The motion was passed unanimously
2023.11.12	Greenhouse gas emissions management performance report	Execution according to the plan
2023.12.21	2024 Annual Sustainable Development Plan and Strategic Direction Proposal	The motion was passed unanimously

Other meetings related to climate change management

Meeting date	Meeting content	Hours (hr)	Participants/job titles
2023.03.16	2030/2050 Green Industrial Revolution	3	Corporate Governance Officer
2023.05.26	Green Chemistry Co-creating Sustainability	3	2 directors
2023.09.05	Climate change and TCFD	3	Members of the Board of Directors/ Corporate Governance Officer
2023.07.04	2023 Cathay Sustainable Finance and Climate Change Summit	6	Corporate Governance Officer
2023.03.24	2023 Supplementary Explanation of Key Sustainable Development Issues	3	Corporate Governance and Sustainable Development Committee members and department managers
2023.08.07	2022 Sustainability Report and TCFD Report Review Case	3	Corporate Governance and Sustainable Development Committee members and department managers
2023.12.18	2024 Annual Sustainable Development Plan and Strategic Direction Proposal	3	Corporate Governance and Sustainable Development Committee members and department managers

3. Climate Change Risk and Opportunity Management

3.1 Climate-related risk and opportunity identification assessment process

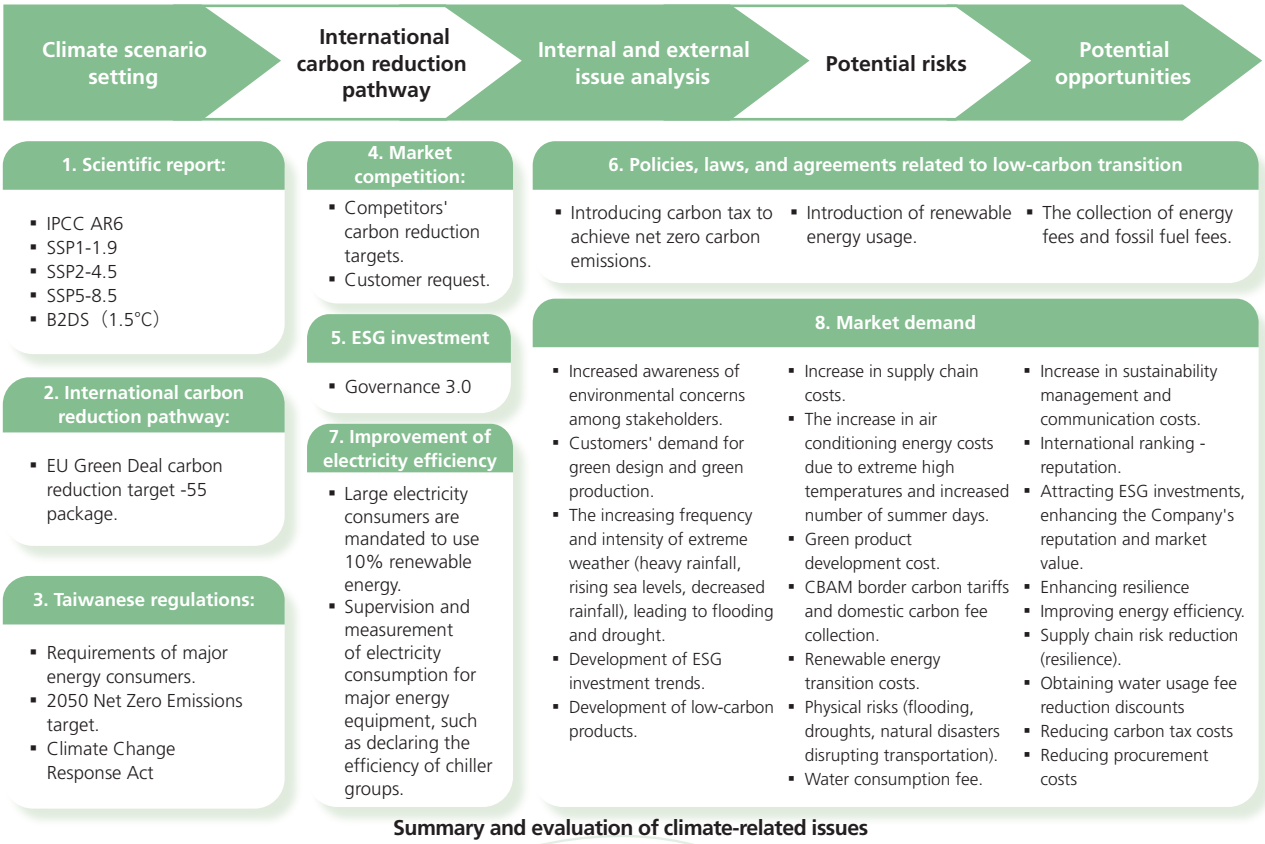


Climate-related risk and opportunity assessment process

Summary and evaluation of climate-related issues

Classify and inventory the risk and opportunity categories (transition risk, physical risk, and opportunity) proposed by the TCFD framework. Engage in discussions with each department to clarify current measures, potential solutions, methods of acquiring financial quantification data, feasibility, and sources. Finally, compile the potential climate change risks and opportunities for Eternal.

The climate risk assessment process is based on the impact of climate change on the Company's overall operations, with reference to the TCFD reporting framework and takes into account the climate-related risks published by the Japanese Ministry of the Environment. Process design using opportunity scenario integration analysis guidelines ver2.0. First, identify the key units and facilities within Eternal's internal operations, such as energy needs, regulatory requirements, and carbon reduction goals. Then, assess the potential impacts and degree of impact.



Summary and evaluation of climate-related issues

3.2 Climate-related risk and opportunity management process

With respect to the Company's possible climate risks and opportunities, the impact of the issue on operations and the occurrence of the issue were evaluated according to the scores defined in the Company's Impact Scale and the Occurrence Scale, with the impact on the financial aspect being given priority in the evaluation of the impact on operations, and the impact on the non-financial aspect being evaluated only when quantification of the impact is not feasible with respect to the financial information.

After assessing the impact level and occurrence probability, consult the 'Risk Opportunity Level Classification Matrix Guidelines' to classify the risks and opportunities based on their landing location distance levels. Identify the risks and opportunities that require handling and develop implementation strategies.

Risk Opportunity Level Classification Matrix Guidelines

Level	Landing location	Degree	Decision
3	12~25	High	To be handled
2	6~10	Medium	Depends on the circumstances
1	1~5	Low	May be temporarily left untreated

Risk and Opportunity Matrix

5	10	15	20	25
4	8	12	16	20
3	6	9	12	15
2	4	6	8	10
1	2	3	4	5

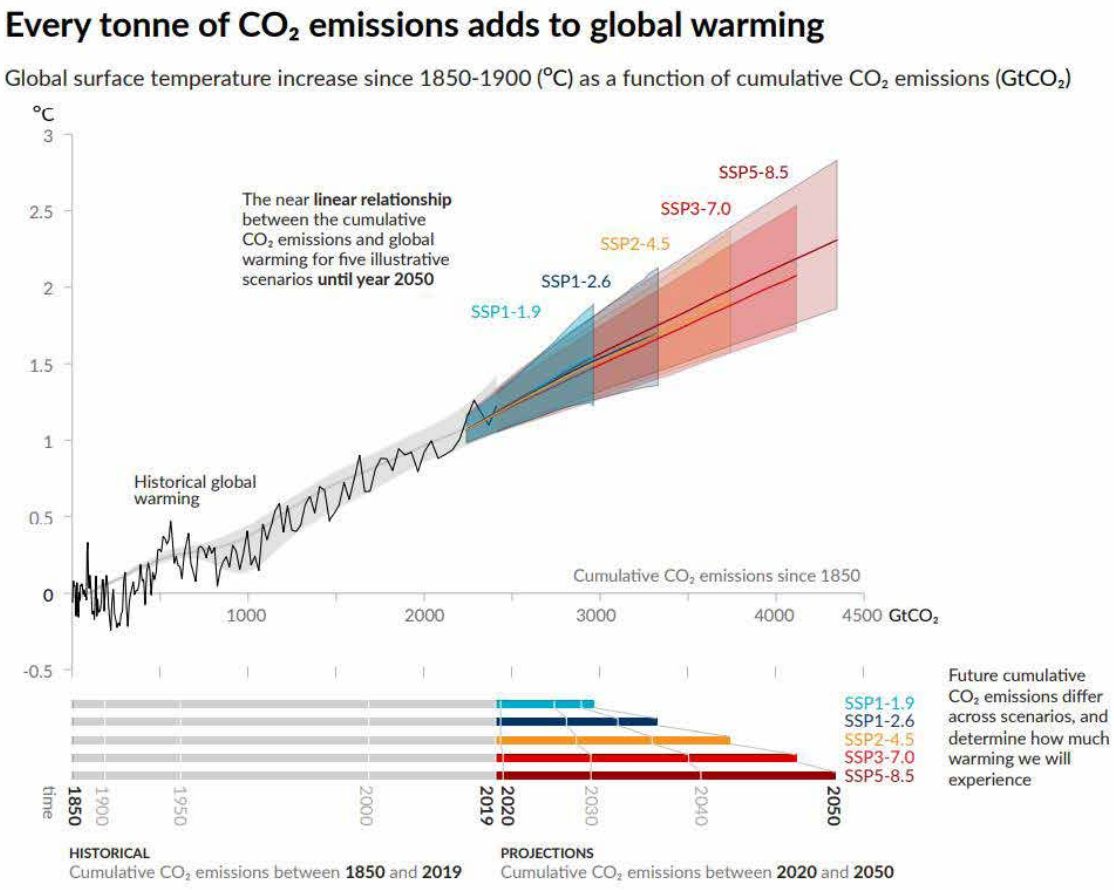
3.3 Integration of the overall risk management mechanism of the organization

Eternal identifies and integrates climate risks and opportunities to effectively integrate the management mechanism. According to the "Organizational Procedures of the Corporate Governance and Sustainable Development Committee", the Committee is responsible to the Board of Directors for tracking and reviewing the effectiveness of the annual sustainable development plan, sustainable development projects, and the implementation of related activities. Once a year, through the internal and external environmental issues risk assessment process, mainly by the Net Zero Carbon Emission Working Group, the relevance of each issue to the Company's operational risk and the magnitude of the risk are examined and assessed from various angles. The committee annually reports the implementation details of climate risks and opportunities to the President. The President then reports the relevant performance to the Board of Directors, ensuring continuous improvement and implementation of various management operations.

4. Strategy

4.1 Climate-related scenario simulation (1.5°C)

Eternal's 2021 TCFD adopted the latest Sixth Assessment Report (AR6) of the IPCC in 2021. The report incorporates a more nuanced approach called "Shared Socio-economic pathways" (SSP), which integrates qualitative socio-economic conditions into the integrated assessment model, including fundamental elements and driving factors such as population, human development, economy, lifestyle, policies and institutions, technology, environment, and natural resources. Five scenarios were generated as a result, covering a range of carbon emissions from negative to extremely high: SSP1-1.9, SSP1-2.6, SSP2-4.5, SSP2-7.0, and SSP5-8.5.
Among the five scenarios mentioned above, there is minimal difference in the impact between SSP1-1.9 and SSP1-2.6, as well as SSP2-7.0 and SSP5-8.5. Therefore, for the analysis of the corresponding 1.5°C period, the climate scenarios considered are SSP1-1.9, SSP2-4.5, and SSP5-8.5.



Climate Scenario Illustration for 2021

Eternal's climate scenario setting

Scenario \ Year	2022-2023	2024-2025	2026-2030	2031-2040	2041-2050
SSP1-1.9 B2DS	1.5°C	1.5°C	1.5°C	1.5°C	1.5°C
SSP2-4.5 2DS	1.5°C	1.5°C	1.5°C	1.5°C	2°C
SSP5-8.5	1.5°C	1.5°C	1.5°C	2°C	3°C

4.2 Climate-Related Risk And Opportunity Analysis Results

Assessment of the operational impacts of climate change

The assessment of the impact of climate change is based on the degree and probability of the impact on profit or loss, capital expenditures, and cash flows. However, some of the risks and opportunities that cannot be quantified as financial information are considered with non-financial impacts. The degree of operational impact of risks and opportunities is considered with the following aspects.

Risk	Financial aspect NT (investment amount to be made for potential countermeasures against risks)	Financial aspect NT (percentage of revenue impacted by increased costs and expenses due to climate risk)	Non-financial aspect (to be used when the financial impact cannot be assessed)
Opportunity	Financial aspect NT (potential increase in operating income or potential decrease in transition costs)	Financial aspect NT (the effect on potential profit increase or reduction in expenditure due to investment opportunities)	Non-financial aspect (to be used when the financial impact cannot be assessed)

Degree considerations of operational impact of risks and opportunities

Short, medium, and long-term climate-related risk and opportunity matrix

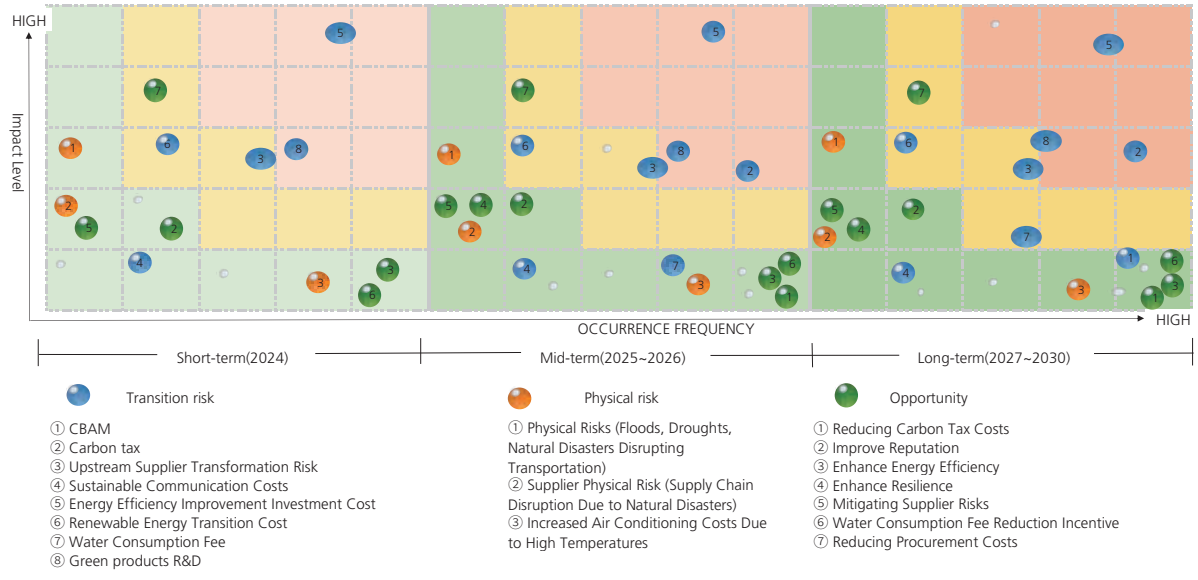
For this assessment, the short term is set as 2023, the medium term as 2024-2025, and the long term as 2026-2030. Regarding potential risks and opportunities related to climate change, the degree of impact on operations and the probability of occurrence based on existing measures, scenario simulations, and the strength of the issue's relevance will be determined. Subsequently, a risk and opportunity matrix will be drew. The green area in the diagram represents a low risk and opportunity region, the yellow area represents a moderate risk and opportunity region, and the pink-orange area represents a high risk and opportunity region. Risk and opportunity response strategies will be formulated based on the score and timeline of each issue.

(1) Short, medium, and long-term climate risk matrix

A. Through scenario simulations of extreme weather such as typhoons, floods, droughts, and heavy rains, the financial impacts on the Company may include impaired production capacity, increased manufacturing costs, increased risk management expenses, and decreased demand for products. Overall, extreme weather conditions have a negative impact on the finances of the manufacturing industry, necessitating strengthened risk management measures to mitigate losses caused by extreme weather.

B. Based on the risk matrix assessment, the transformation and physical risks are associated with various risk scenarios and can lead to financial cost impacts in the short, medium, and long term.

Climate-related risk and opportunity matrix



(2) Relevant issues with significant financial impact in the short, medium, and long term

Short-term: Energy equipment and efficiency improvement.

Mid-term: Energy equipment and efficiency improvement, high-risk issues such as carbon costs (estimated at 500NT per ton).

Long-term: high-risk issues such as carbon costs (estimated at 500NT per ton).

4.3 The impact of climate-related risks and opportunities on organizational business, strategy, and finance

Assessment of the financial impact of climate change issues

The medium to long-term goal is to achieve a 30% reduction in carbon emissions by 2030 compared to 2020, in order to meet the requirement of limiting temperature increase to below 1.5°C . The group has established reduction targets and regularly reviews the efficiency and of electricity, water, heat, and carbon emission reduction operations. They continuously invest in research for green products, install solar power systems, and replace outdated equipment to improve energy efficiency. They also comply with government regulations and fully implement various energy-saving programs in plants to achieve their energy-saving and carbon reduction goals. Among the various climate risk issues, investments and improvements in energy equipment and efficiency will have a significant impact on the Group's revenue in the short and medium term, but the impact on operating income in the short, medium, and long term is less than 0.3%. The proportion of investment in green product development costs increases year by year.

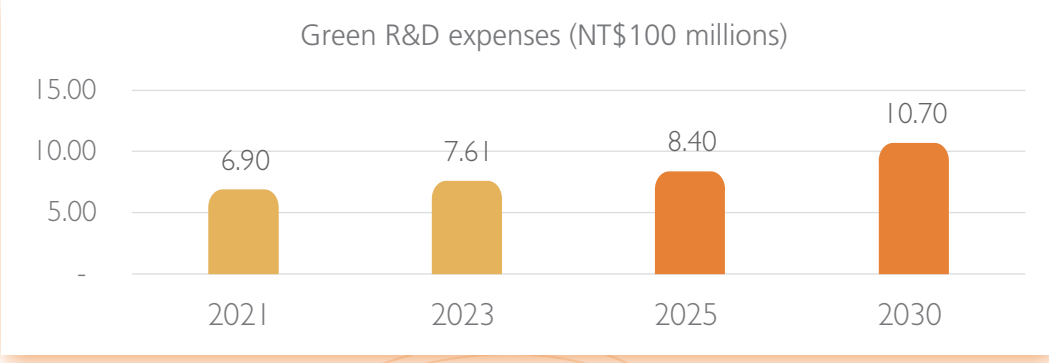
Assessment of the financial impact of climate change issues

Climate risk/opportunity issues	Revenue	Cost/ expense	Capital expenditure	Profit or loss	Cash flow	Impact on operating income		
						Short-term	Mid-term	Long-term
Carbon cost		Increase		Decrease	Decrease	/	<0.02%	<0.01%
CBAM carbon tariffs		Increase		Decrease	Decrease	/	/	<0.01%
Upstream supplier transition cost		Increase		Decrease	Decrease	/	<0.05%	<0.05%
Investment in equipment energy improvement			Increase		Decrease	1.14%	0.51%	0.12%
Maintenance costs of solar power facilities		Increase		Decrease	Decrease	/	/	<0.01%
Sustainability management and communication costs		Increase		Decrease	Decrease	0.02%	0.02%	0.01%
Water consumption fee		Increase		Decrease	Decrease	/	<0.01%	<0.01%
Increased air conditioning costs caused by high temperatures		Increase		Decrease	Decrease	<0.01%	<0.01%	<0.01%
Green research and development transformation			Increase		Decrease	0.08%	0.08%	0.07%

Note: "+ cash flow" indicates cash inflow, while "- cash flow" indicates cash outflow

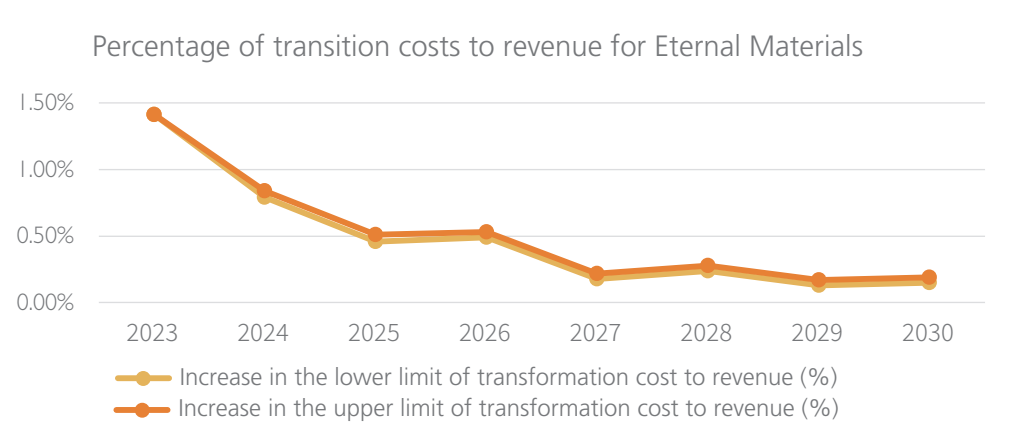
Green product development trend chart

Eternal focuses on green product development, with the proportion of green product R&D expenses increasing year by year. In 2021, green product R&D expenses amounted to NT$690 million, accounting for 45% of the total R&D expenses. It is projected that green product R&D expenses will grow by 5% annually, reaching an estimate of NT$1.07 billion by 2030.



Impact of carbon reduction pathways on finance

Analyzing the proportion of revenue attributed to issues quantifiable as financial data based on the results of climate risk identification.



Impact of Eternal's carbon reduction pathways on finance

Long-term physical risk to be monitored

Currently, global sea levels have risen by around 20 centimeters since 1900. The IPCC AR6 assessment report estimates that by 2100, the average sea level will rise by an additional 30 centimeters to 1 meter, or possibly even higher, due to the impact of atmospheric carbon dioxide concentrations.

In the current year, Eternal utilized the "Surging Seas MAPPING CHOICES" software, developed by the United States Climate Central Research Organization, to evaluate the impact of sea-level rise.

Eternal operates production plants in various locations, including Taiwan (Kaohsiung Luzhu District, Kaohsiung Daliao District Dafa Industrial Zone, Pingtung Pingnan Industrial Zone), Mainland China, and Malaysia. While the Taiwan and Malaysia plants are relatively unaffected by rising sea levels under global temperature increases of 1.5°C and 4.0°C , the majority of the Mainland China plants face the risk of flooding. It is important for the Company to maintain ongoing monitoring of the long-term risk of potential flooding.

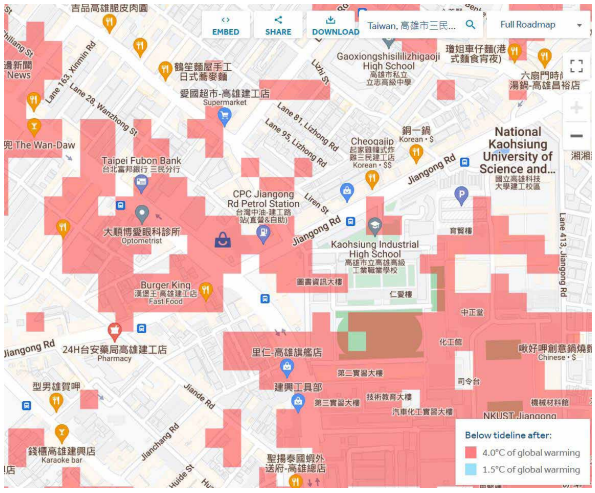
Region	Plants	Location	Over 1.5° C Flood risk	Over 4.0° C Flood risk
Taiwan	Headquarters Lu-Chu Plant Ta-Fa Plant	Kaohsiung	None	None
	Ping-Nan Plant	Pingtung	None	None
Mainland China	South China	Guangzhou and Zhuhai	Yes	Yes
	East China	Kunshan, Changshu, Suzhou	Yes	Yes
	Southwest	Chengdu	None	None
	North China	Tianjin	Yes	Yes
Malaysia	Malaysia Plant	Johor	None	None

Possible sea level impacts on major production sites under 1.5°C and 4.0°C scenarios

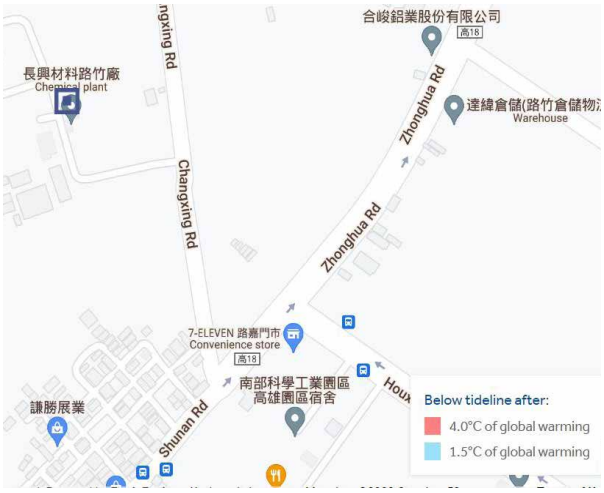
4.0°C of global warming

1.5°C of global warming

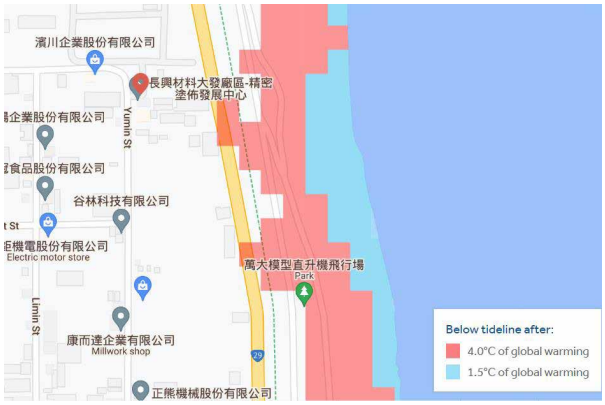
Headquarters



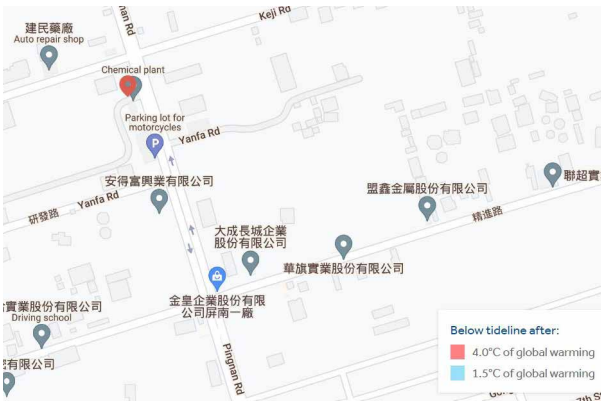
Lu-Chu Plant



Ta-Fa Plant



Ping-Nan Plant



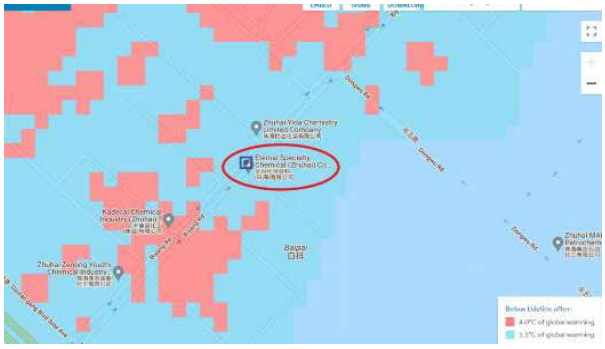
South China Plant

Chengdu Plant

Chongqing Slitting Plant

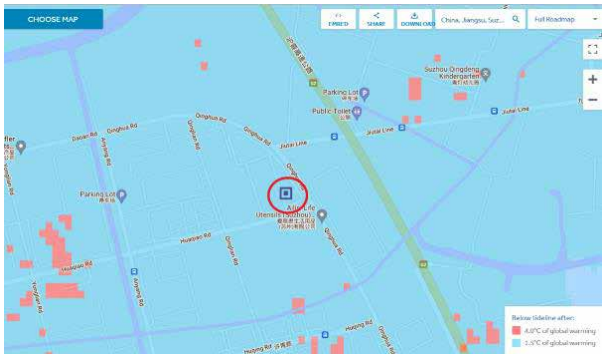
Guangdong Plant

Zhuhai Materials Plant



Northeast China Slitting Plant

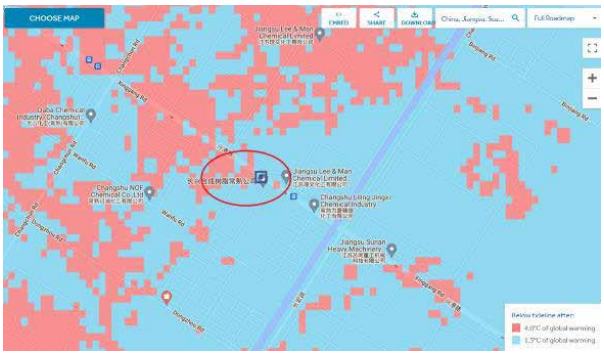
East China Plant 1



Kunshan Chemical Plant

Tianjin Plant

Changshu Plant



Suzhou Materials Plant

Malaysia Plant

Physical risk measures for floods and waterlog

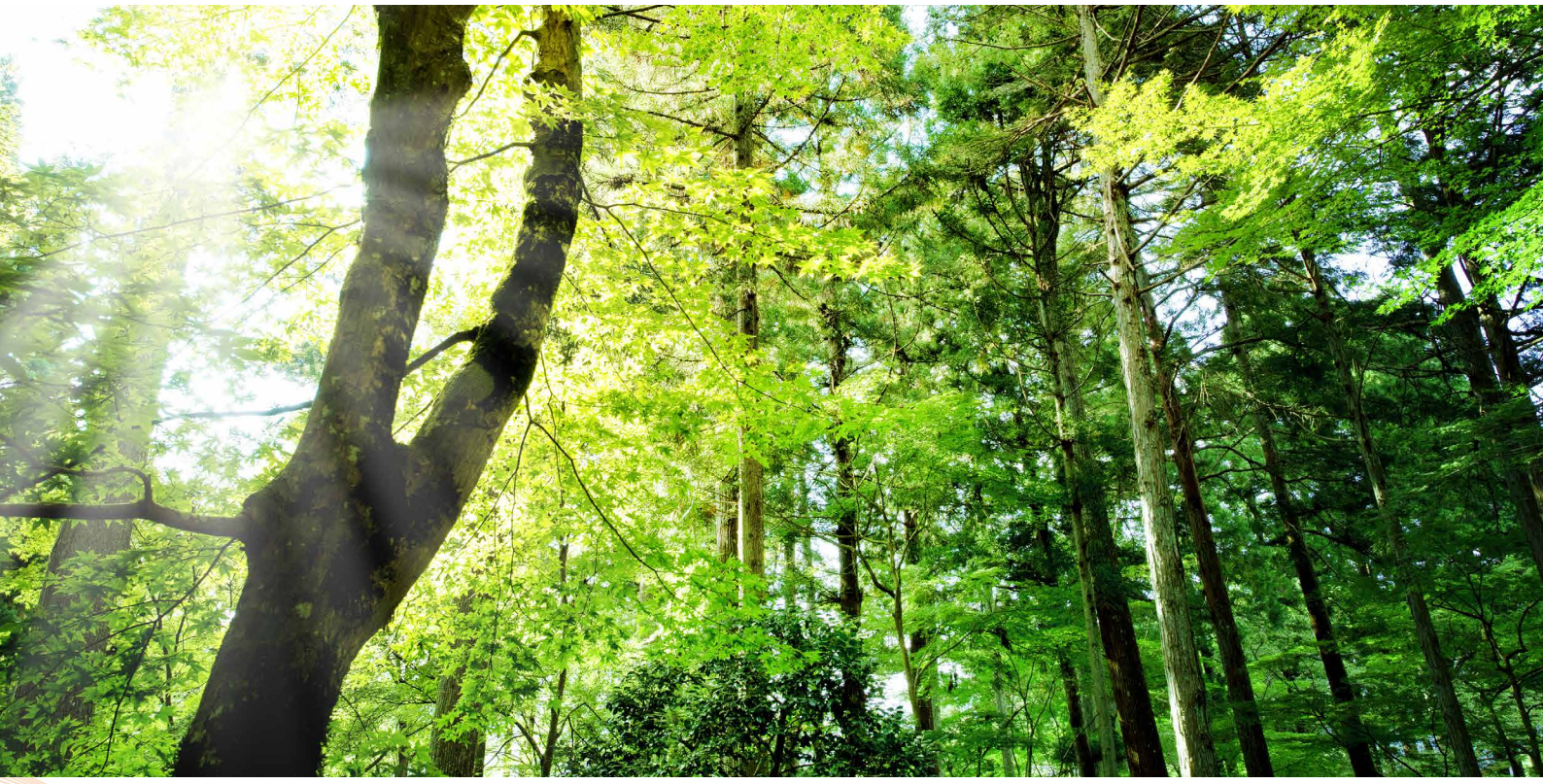
Facing the potential flooding hazards resulting from extreme weather conditions, all departments of the Company have formulated emergency plans for natural disasters. Each plant has established alert water levels and implemented flood prevention measures specific to their operational areas, with the objective of minimizing the Company's vulnerability to natural disaster risks.

Plants		
Water level alert line	Yellow alert line CM	Red alert line CM
Regions and measures	Alert zone	Flood prevention measures
Yellow alert	Region name one	Process and Response measures:
	Region name two	Process and Response measures:
Red alert	Region name one	Process and Response measures:
	Region name two	Process and Response measures:

Flood emergency response plan table for plants (example)

Long-term transformation risk to be monitored

In response to global policy and regulatory changes regarding climate change, carbon border taxes, and the pressure to reduce emissions in the supply chain, as well as increased operational and transition risks associated with carbon reduction technologies, the Company has undertaken risk assessments, taken actions, implemented measures to improve energy efficiency, and adopted carbon layout strategies. These initiatives are aimed at developing sustainable development strategies and ensuring the Company's competitiveness.



4.4 Description of measures

Climate risks opportunities analysis and response measures					
Climate impact incidents	**Type of risk**	**Potential financial risk**	**Type of opportunity**	**Potential financial benefits**	**Management measures/ improvement actions**
Regulatory or agreement requirements	Transition risk - Compulsory laws, agreements, official policy requirements - Technical risk	Laws, policies, reduction, and renewable energy percentage target: (1) 2050 net zero emissions (2) Corporate Governance 3.0 (3) Disclosure of sustainability indicators (4) Water consumption fee collection (5) Taiwan's carbon fee in 2025 (6) CBAM carbon tariffs	Resilience - Enhancing corporate resilience - Resource efficiency - Reducing carbon tax and water consumption costs - Reputation - Enhancing corporate reputation	Improving the Company's ESG performance and market investment value	• Incorporating energy management systems. • Replacing process equipment and utility equipment • The proportion of self-generated renewable energy is steadily increasing. • Response: The response and disclosure of sustainability indicators in accordance with the 'Operating Procedures for the Preparation and Filing of Sustainability Reports by Listed Companies' of the Taiwan Stock Exchange. • Keeping track of short, medium, and long-term TCFD risks and opportunities. • Implement an internal carbon pricing and carbon trading mechanism within the Company. • Open an account with the domestic or international carbon trading exchange. • The Climate and Environmental Investment Advisory suggests that TCFD may be introduced into systematic operations, for example, through standardized accounting procedures, to enhance data quality.
Supply interruption	Physical risk - Immediate/long-term	Supply chain management: (1) Interruption of raw material supply (2) Supply chain disruption	Resilience - Supply chain risk reduction	Enhancing supply chain reliability and flexibility	• Evaluating the implementation of procurement/customer/ financial supply chain management systems to enhance management resilience and strengthen ESG Report contents.
Fluctuations in raw material costs	Transition risk - Market	Upstream supplier transition cost shifting	Resilience - Reducing procurement costs	Reducing cost increases due to raw material prices increases or deviations from market estimates	• Evaluating the implementation of procurement/customer/ financial supply chain management systems to enhance management resilience and strengthen ESG Report contents.

Climate risks opportunities analysis and response measures					
Climate impact incidents	**Type of risk**	**Potential financial risk**	**Type of opportunity**	**Potential financial benefits**	**Management measures/ improvement actions**
Market preference changes	Transition risk - Market - Technology	Market preference changes: Customer's requirements for green design	Product services - Revenue improvement - Increase in market share - New market development	Increasing customer trust, competitiveness, and revenue	• Increasing R&D investment and market shares of green products. • To publicize the Company's sustainable business attitude in the external media.
Increased severity of extreme weather events such as typhoons, floods, and sea level rise	Physical risk - Long-term	Impact of extreme weather events: Floods caused by extreme weather, heavy rainfall or typhoons, leading to production or upstream/ downstream supply disruptions	Resilience - Enhancing corporate resilience	Enhancing supply chain reliability and flexibility	• The Company has acquired relevant disaster insurance. • Maintaining real-time flexible scheduling of production areas. • Construction of measures for floods and waterlog
Average temperature rises	Physical risk - Immediate/long-term	Increased demand for air conditioning or cooling systems in offices and factories due to high temperatures, resulting in higher energy consumption or forced production shutdowns	Energy source - Improve energy efficiency	Reducing the impact of energy costs	• Continuously improve the energy management system to control the use of energy. • Replacing process equipment and utility equipment. • Maintaining real-time flexible scheduling of production areas.
Changes in rainfall (water) patterns and climate patterns	Physical risk - Immediate/long-term	(1) Loss on reduction/ cessation of production (2) Limited water supply or outages has led to increase in external water procurement costs	Resource efficiency - Reducing the cost of water resources	Reducing the increased cost of water resources due to drought	• Implementing control measures according to water condition signals. • Using water resource recovery systems to increase the rate of water recycling.
Sea level rise	Physical risk - Immediate/long-term	Floods caused by rising sea levels	Resilience - Enhancing corporate resilience	Enhancing supply chain reliability and flexibility	• The Company has acquired relevant disaster insurance. • Maintaining real-time flexible scheduling of production areas. • The potential impacts of sea level rise were included as a necessary condition for site selection evaluation.
Limited water supply/ outages	Physical risk - Immediate/long-term	(1) Loss on reduction/ cessation of production (2) External water procurement costs			• Implementing control measures according to water condition signals. • Improve water recovery rate.

5. Indicators and targets

5.1 Greenhouse gas emissions target

After evaluating the impact of climate change on the Company, Eternal's Taiwan plants started to inventory its carbon emissions in accordance with ISO 14064-1 in 2005, whereas the plants in Mainland China and Malaysia did not start to inventory in the same year due to the difference in the year of completion of the plants, it is proposed that the total GHG emissions in 2020 be the Company's base year for emissions, and that the Company's reduction targets for each period be set. Establishing greenhouse gas schedules in accordance with the management targets, and regularly tracking the energy consumption, greenhouse gas emissions, and carbon reduction benefits of each plant.

Indicator	Base year & annual management goal	2030 milestone	Long-term goal for 2050
Carbon intensity (physical strength)	With 2020 as the base year. Carbon emissions per unit of product (Scope 1+2) will lower by 1.5%.	Down by 15% by 2030.	Eternal's plants in Taiwan will achieve carbon neutrality, while our global physical carbon intensity will decrease by 50%.
Carbon intensity (economic intensity)	Carbon emissions per unit of revenue (Scope 1+2) will lower by 3%. The base year is 2020.	Down by 30% by 2030.	By 2050, Eternal's plants in Taiwan will achieve carbon neutrality, while our global economic carbon intensity will decrease by 90%.
Actions for total reduction	Our total global carbon emission will lower by 3% every year compared to the 2020 base year.	Our total global carbon emission will lower by 30% by 2030.	Our total global carbon emission will lower by 100% by 2050.
Scope 3 total emissions	With 2021 as the base year to reduce emissions in Scope 3 every year.	Down by 20% by 2030.	Down by 50% by 2050.
Energy conservation	Based on the average unit consumption of various energy resources (process electricity, thermal energy, and total water intake) from 2016 to 2020, we have an average decrease of 1.5% every year since 2021.	By 2030, our total unit consumption of these energy resources will lower by 15%.	By 2050, our total unit consumption of these energy resources will lower by 50%.
Renewable energy development	With 2020 as the base year to gradually increase the proportion of renewable energy compared to our total global electricity consumption.	Our utilization of renewable energy will reach 10% of the total energy consumption by 2030.	Our utilization of renewable energy will reach 100% of the total energy consumption by 2050.

5.2 Other indicators

To strengthen energy and GHG management, we set energy baseline and energy performance indicators in accordance with ISO 50001, and set global targets for energy conservation and renewable energy development as follows:

Type of quantitative indicator	Corresponding management indicators	Base year & management goal	2030 vision & quantitative indicators
Substituting hazardous substances with safer alternatives	Green research and development innovation	Reduce the use of high-concern and toxic chemical raw materials on a yearly basis, with 2021 as the base year.	Reduce the total use of high-concern and toxic chemical raw materials by 5% of the base year by 2030.
Sustainable green products	Green research and development innovation	Based on the sales of $8.4 billion in 2021, the annual growth rate of green product sales is 11%.	Sales growth of 150% ($20 billion) by 2030.
Green energy/energy saving application materials	Green research and development innovation	Based on sales of $1.44 billion in 2021, the annual growth rate of green/energy saving application materials is 15%.	Sales to reach $5 billion by 2030.
Product carbon footprint	Green research and development innovation	Product carbon footprint surveys will be implemented progressively from 2022 onwards.	By 2030, we will have completed internal investigation reports on the carbon footprint of all our products, as well as internal and external sales verification audits.

6. GHG emissions and reduction actions

6.1 Greenhouse gas emissions information

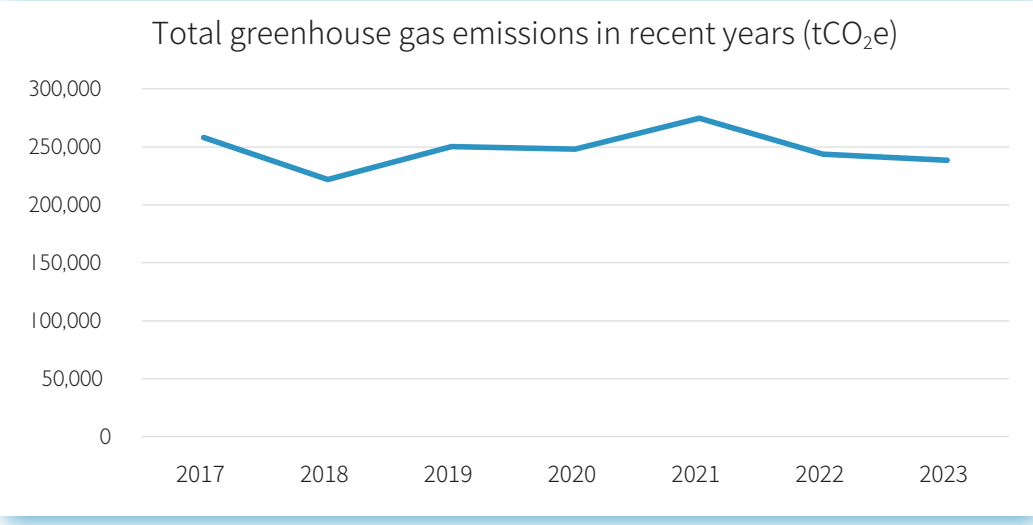
Eternal's emissions and intensity inventory information for the past two years is as follows:

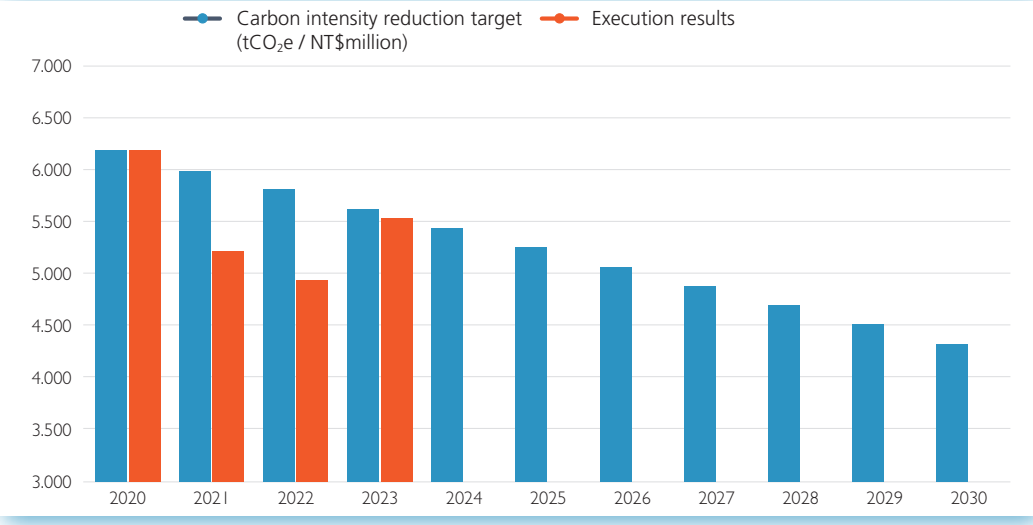
Greenhouse gas emissions (tCO_2e)					
Year	2022				
Region	Taiwan	Mainland China	Malaysia	Other site	Total emissions
Scope 1	27,949	48,287	7,437	82	83,755
Scope 2	35,540	119,441	4,839	1,291	161,111
Scope 1 + 2	63,489	167,728	12,275	1,373	244,865
Scope 3	359,626	1,202,109	140,931	182,853	1,885,519
Year	2023				
Scope 1	26,345	47,464	7,680	102	81,591
Scope 2	31,579	119,580	4,901	1,388	157,448
Scope 1 + 2	57,924	167,045	12,581	1,489	239,039
Scope 3	351,066	1,127,128	151,674	180,699	1,810,567

Note: Taiwan refers to Lu-Chu Plant, Ta-Fa Plant and Ping-Nan Plant; China refers to South China Plant, Chengdu Plant, Chongqing Plant, Guangdong Plant, Zhuhai Plant, Northeast China Plant, East China Plant, Kunshan Chemical Plant, Tianjin Plant, Changshu Plant and Suzhou Plant; and Malaysia refers to Malaysia Plant; Other sites are sites that are part of the parent company's other sites, but have less than 5% carbon emissions in Scope 1+2 (Headquarters, Xi-zhi Plant, Zhongli Warehouse, North Area Sales Office, Middle Area Sales Office, Korea Office, and Vietnam Office).

Greenhouse gas emissions intensity (tCO_2e/NT$ million)				
Year	2022			
Region	Taiwan	Mainland China	Malaysia	Total emissions
Scope 1	1.738	1.578	2.714	1.693
Scope 2	2.211	3.902	1.766	3.234
Scope 1 + 2	3.949	5.480	4.480	4.927
Scope 3	22.369	39.275	51.434	34.450
Year	2023			
Scope 1	1.985	1.759	2.844	1.897
Scope 2	2.379	4.432	1.815	3.633
Scope 1 + 2	4.363	6.192	4.658	5.530
Scope 3	26.446	41.779	56.164	37.944

Note: Taiwan refers to Lu-Chu Plant, Ta-Fa Plant and Ping-Nan Plant; China refers to South China Plant, Chengdu Plant, Chongqing Plant, Guangdong Plant, Zhuhai Plant, Northeast China Plant, East China Plant, Kunshan Chemical Plant, Tianjin Plant, Changshu Plant and Suzhou Plant; and Malaysia refers to Malaysia Plant.





Note: Carbon intensity reduction target for 2020 (base year) and annual progress of achievement.

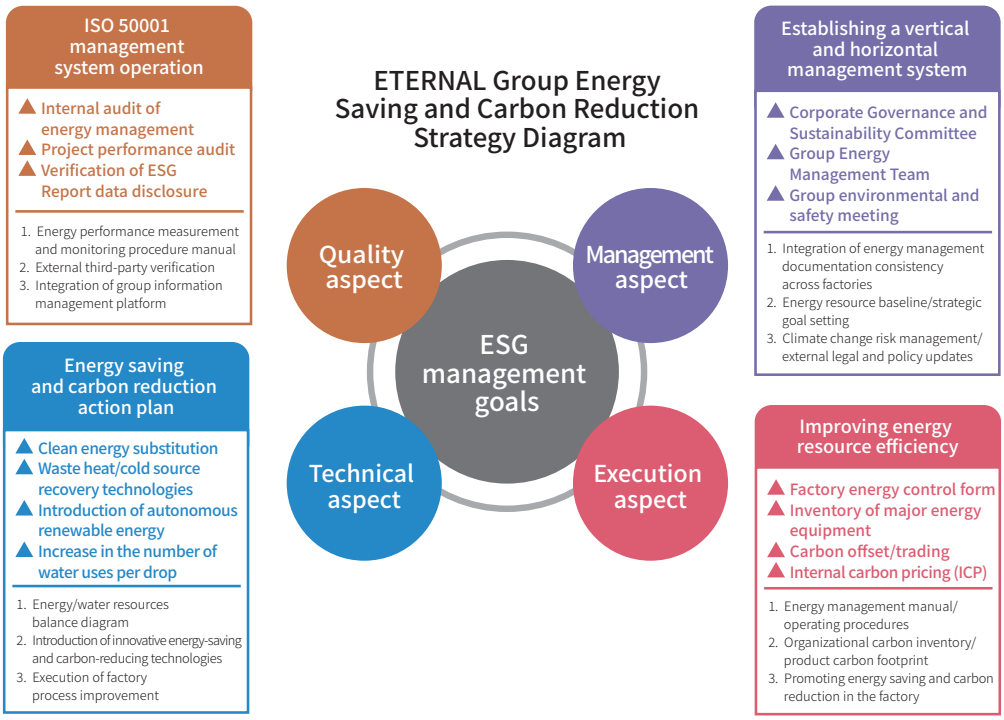
6.2 Greenhouse gas verification and confirmation

In accordance with the schedule of the relevant competent authorities for verification or confirmation, each of the Group's sites conducts an annual self-inspection in accordance with the ISO 14064-1 standard, and one of its Taiwan production plants annually commissions an external verification company (BV) to conduct a third-party verification in accordance with ISO 14064-1:2018, while the other subsidiaries will gradually complete the third-party verification work in accordance with the planned schedule.

All information that has been checked and verified will be disclosed in the company's sustainability report or other information platforms for the reference of relevant stakeholders and organizations, and the confirmation will be completed in accordance with the competent authority's confirmation standards, and the confirmation results and opinions will be disclosed in the Company's sustainability report.

6.3 Greenhouse gas reduction strategies and specific actions

Eternal continues its solid process technology research and development and perfect environmental safety and hygiene management system, and adopts various methods to comprehensively promote energy saving and carbon reduction measures in the factory, in order to enhance the efficiency of energy use and various carbon reduction programs, and sets up various energy saving and carbon reduction management targets for electricity, heat, water, drainage, renewable energy, etc., and annually reviews the achievement of the situation, and further studies and draws up an improvement plan.



The following is a list of energy consumption reduction actions to be implemented at each of Eternal's plants in 2023:

Item	Investment cost (NT$10 thousands)	Cost reduction (NT$10 thousands/year)	CO2 reduction (tons)
Replacement of chillers in the experimental plant of Lu-Chu Plant	320	28.0	34.7
Replacement of water cooler at Lu-Chu Plant	7.2	8.3	40.9
Replacement of UP cooling water pumps at Lu-Chu Plant	96.6	178.9	221.4
Self-constructed solar power generation in Lu-Chu Plant	7,358	624.0	772.2
Reduction of PET replacement time at Ta-Fa Plant	0	17.3	41.5
Air conditioning system replacement at Ping-Nan Plant	200	22.0	27.2
Ping-Nan Plant's cooling chilled water system energy saving	0	47.7	59.0
Improvement of the leakage of the compressed air system at the Ping-Nan Plant	0	63.7	78.9
Optimization of production efficiency (power saving) at Ping-Nan Plant	0	37.1	46.0
Optimization of production efficiency (thermal energy saving) at Ping-Nan Plant	0	167	63.6
Replacement of water cooler at Ping-Nan Plant	20	53	200.5
Lighting improvement at Tianjin Plant	120	44.3	65.9
Optimization of the operation of the heat media transfer pump for the heat exchange boiler at Tianjin Plant	13.7	31.1	22.2
Optimization of energy saving of air pressure system at Tianjin Plant	0	17.4	26.0
Kunshan Chemical Plant reduces amino steam unit consumption	98.9	18.0	23.4
Replacement of compressed air system at Kunshan Chemical Plant	105.7	35.2	30.0
Optimization of electric tracing in Kunshan Chemical Plant	17.2	34.4	29.3

Item	Investment cost (NT$10 thousands)	Cost reduction (NT$10 thousands/year)	CO2 reduction (tons)
Optimization of waste gas and waste liquid furnaces at the Chengdu Plant	0	30.4	850.8
Optimization of the Chengdu Plant's utility systems (thermal energy saving)	0	201.7	564.3
Adding new lithium bromide chillers at Guangdong Plant	537.5	185.7	270.1
Improvement of steam leakage point in Guangdong Plant	232.2	132.9	350.8
Reduction of acrylic wastewater production at Guangdong Plant	0	42.5	110.4
Replacement of utility systems at Changshu Plant (energy saving)	346.1	29.2	41.3
Reduced airflow of the Changshu Plant's exhaust gas treatment furnace	0	116.1	317.1
Concentration of high-concentration process wastewater at Zhuhai Materials Plant	1,978	285.9	581.6
Process wastewater regeneration at Zhuhai Materials Plant	0	1,310.0	3,574.9
New solar power generation at Suzhou Materials Plant	752.5	49.2	84.6
Optimization of production efficiency (power saving) at Suzhou Materials Plant	15.9	32.6	36.1
Optimization of production efficiency (thermal energy saving) at Suzhou Materials Plant	0	55.5	80.5
Optimization of production efficiency (power saving) at East China Plant 1	195.2	109.7	145.0
Procurement of green energy certificates from external sources by East China Plant 1	31.5	–	990.0
Optimization of scheduling and adjustment of thermal value of glue to reduce power consumption in the East China Plant 1	0	77.4	113.0
Lighting improvement at South China Plant 1	176.3	110.1	181.1
Utility system improvement (power saving) at South China Plant 1	386.5	86.4	136.3
RTO replaces heavy oil with natural gas at South China Plant 1	2,541.3	393.4	127.4
Introduction of photovoltaic power generation in South China Plant 1 & 2	0	–	623.7
Utility System Improvement (Power Saving) at South China Plant 2	186.6	121.4	177.4
Northeast China Slitting Plant utility system management (heat reduction)	0	23.6	29.1
Lighting improvement at Malaysia Plant	74.6	25.0	30.8
Waste solvent assisted combustion at Malaysia Plant	0	158.7	38.4

Note:

1. The baseline for the reduction of energy consumption was set in accordance with ISO 50001 for the verification of energy performance indicators, and the actual usage in 2022 was used as the baseline.
2. The calculation of CO_2 emission reduction (tons) is based on the 2022 Electricity Carbon Emission Factor and Fuel Combustion CO_2 Emission Statistics provided by the Energy Administration of Taiwan.
3. The amount of energy reduction is measured directly.
4. Unit of currency: NTD; exchange rate: 1 CNY= 4.3 NTD; 1 MYR= 6.8 NTD.

Climate-related indicators			
Indicator	**2021**	**2022**	**2023**
Power reduction rate (%)	0.55%	1.42%	4.92%
Heat reduction rate (%)	5.15%	2.03%	6.22%
Renewable energy installations (kW)	15	15	3,077
Use of renewable energy (kWH)	17,305	621,465	3,323,088
Carbon offset credits (tCO_2e)	–	–	955
Renewable energy certificate (sheet)			15
Energy intensity of electronic materials (MJ/kft^2)	69.22	73.47	63.31
Energy intensity of resin materials (MJ/ton.)	3,369.14	3,782.71	3,651
Energy intensity of biomedical materials (MJ/dose)	–	1.54	7.26
Water intake (million liters)	1,227.72	1,073.67	1,002.82
Number of times a drop of water is used	1.30	1.48	1.66

Appendix I. References

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Appendix II. TCFD Disclosure Comparison Table

Dimension	TCFD recommended disclosures	Chapter	Page number
Governance	Describe the board's and the management's oversight of climate-related risks and opportunities	2.1 Eternal's Sustainable Governance Framework	3
	Describe management's role in assessing and managing climate-related risks and opportunities	2.2 Climate Governance Framework and Management Responsibilities	4
		3.1 Climate-related risks and opportunities identification and assessment procedure	6
Strategy	Describe the climate-related risks and opportunities the Company has identified over the short, medium, and long term	4.2 Climate-Related Risk And Opportunity Analysis Results	9
	Describe the impact of climate-related risks and opportunities on the Company's businesses, strategy, and financial planning	4.3 The impact of climate-related risks and opportunities on an organization's business, strategy, and financial situation	10
	Describe the resilience of the Company's strategy, considering different climate-related scenarios, and assessing resilience to climate change risks. Explain the scenarios, parameters, assumptions, analysis factors, and major financial impacts used in the analysis.	4.1 Climate-related scenario simulation (1.5°C)	8
Risk management	Describe the Company's processes for identifying and assessing climate-related risks	3.1 Climate-related risks and opportunities identification and assessment procedure	6
	Describe the Company's processes for managing climate-related risks	3.2 Climate-Related Risk and Opportunity Management Procedures	7
	Describe how processes for identifying, assessing, and managing climate-related risks are integrated into the Company's overall risk management	3.3 Integration of the overall risk management mechanism of the organization	7
	Describe the impact of extreme weather events and transition actions on finance	4.2 Climate-Related Risk And Opportunity Analysis Results	9
	Explanation of the climate-related risk transition plan, contents, and the strategies for addressing physical and transformation risks.	4.3 The impact of climate-related risks and opportunities on an organization's business, strategy, and financial situation	10
		4.4 Explanation of Countermeasures	16
Metrics and targets	Disclose the metrics used by the Company to assess climate-related risks and opportunities in line with its strategy and risk management process	5.1 Greenhouse gas emissions target 5.2 Other indicators	18 18
	Disclose Scope 1, Scope 2, and Scope 3 greenhouse gas emissions, and the related risks	6.1 GHG emissions information	19
	Explanation of greenhouse gas inventory and confirmation status, reduction targets, strategies, and tangible action plans	6.2 Greenhouse gas verification and confirmation	20
	Describe the targets used by the Company to manage climate-related risks and opportunities and performance against targets	6.1 GHG emissions information 6.3 Greenhouse gas reduction strategies and specific actions	19 21