台橡股份有限公司
TSRC CORPORATION

Climate-Related Risk Financial Disclosure

In response to climate change, TSRC continues to examine the balance between operations and the environment, and with the vision of becoming carbon neutrality, TSRC is committed to promoting energy saving and carbon reduction to effectively mitigate the impact on the environment.

In terms of greenhouse gas emissions reduction, TSRC takes 2021 as the base year and expects to reduce the Group's greenhouse gas emissions (Scope 1 and 2) by 10% by 2025 and 22.5% by 2030. At the same time, TSRC expects to achieve a use percentage of renewable energy by 10% by 2025 and 30% by 2030, and to utilize innovative manufacturing process technologies to improve production efficiency and reduce energy consumption, thereby continuing to reduce the carbon footprint of each product. TSRC will continue to reduce product carbon footprint and enhance its resilience to climate change.
TSRC actively communicates with stakeholders about its reduction goals and promotes carbon reduction through various effective methods such as meetings and questionnaires for suppliers and customers.

TSRC promotes transparency in the disclosure of climate-related risks and opportunities based on TCFD recommendations (Task Force on Climate-related Financial Disclosures). TSRC has established a climate risk and opportunity management mechanism and integrated it with the company's risk management process to promote low-carbon transformation and strengthen resilience through the four major directions of "Governance, Strategy, Risk Management, Indicators and Targets".

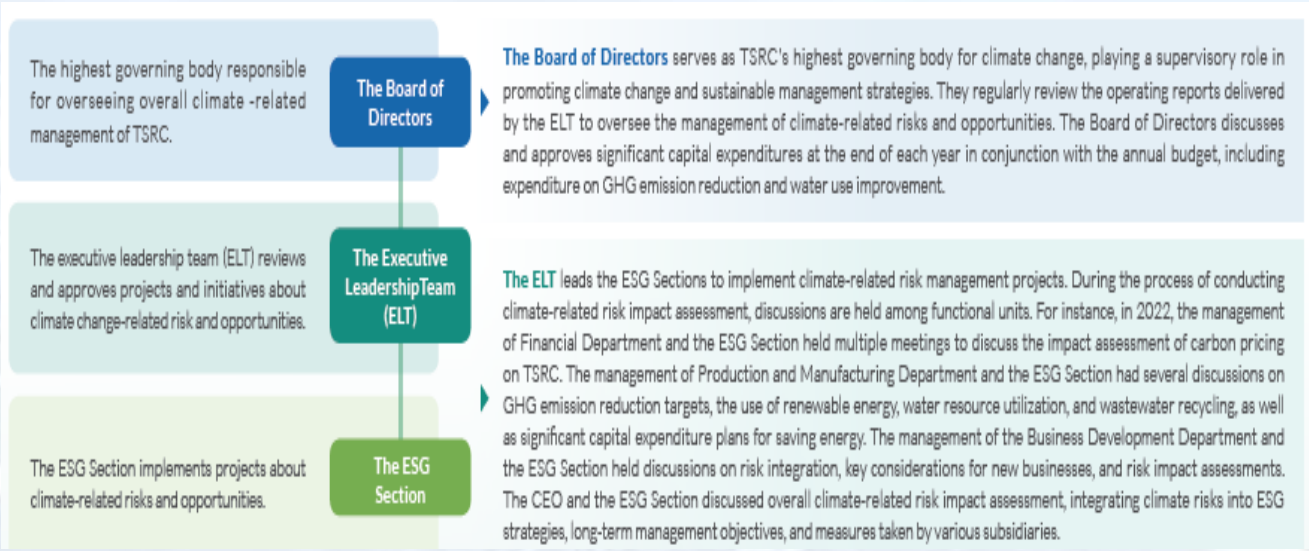
The core elements of the TCFD disclosure are categorized into governance, strategy, risk management, indicators and targets, which are summarized as follows.

TSRC's Management based on the TCFD Recommendations		Implementation in 2022
Governance	The Board of Directors supervises climate-related risks, opportunities, responsive strategies, goals, preventive measures, and achievements.	In January, May, and August of 2022, the Board of Directors received reports from the ELT regarding climate-related issues and provided suggestions to the management mechanisms for climate-related risks and the actual implementation status.
	The executive leadership team (ELT) oversees climate-related issues, sets response plans, facilitates risk protection measures, reviews outcomes, and provides regular reports to the Board of Directors.	The ESG Section reports the implementation of climate-related risk responses to the ELT every quarter. The ELT reviews and make strategic decisions and regularly reports to the Board of Directors in the operational or risk management report.
Strategy	Identify short-, medium-, and long-term climate risks and opportunities according to the identification method of the climate-related risks and opportunities.	We assessed the potential impact levels and the likelihood of occurrence and evaluated the financial impact of climate-related risks and opportunities. Based on the assessment, we developed and implemented countermeasures. For further details, please refer to the Appendices titled "Climate-related Risks and TSRC Response Measures" and "Climate-related Opportunities and TSRC Response Measures".
	Analyze the potential operational and financial impacts of significant climate-related risks and opportunities on TSRC.	We conducted the financial impact assessment of significant climate-related risks associated with the increased pricing of GHG emissions. Please refer to the TSRC Sustainability Report 2021 for details.
	Conduct a climate risk analysis in various scenarios and assess short-, medium-, and long-term carbon reduction and carbon neutrality targets and actions.	In 2021, we analyzed the impact of increased pricing of GHG emissions in the International Energy Agency (IEA) - Sustainable Development Scenario (WB2°C) and the Net Zero Emissions Scenario (NZE) by 2050. Based on the analysis, we formulated climate change strategies and related mitigation measures.

TSRC's Management based on the TCFD Recommendations		Implementation in 2022
Risk Management	• Establish a climate-related change risk identification process in accordance with the TCFD framework.	For further details on the climate-related risk identification process, please refer to the 'Climate-related Risks and Opportunities' section.
	• Develop adaptation and mitigation strategies based on the identified climate-related risks. • Integrate the climate risk identification process into the existing risk management process.	The ELT commissioned TSRC ESG Section to develop response strategies and measures for the climate-related risks based on materiality and implement them in daily operations. The ESG Section is responsible for facilitating the integration of the climate-related risk management and the enterprise risk management system.
Metrics & Targets	Establish climate-related indicators to facilitate annual performance tracking.	We established climate-related performance indicators, including GHG emissions, renewable energy use, wastewater recycling rate, reclaimed water use rate, and the volume of products with lower environmental impacts.
	Conduct annual inventory on Scope 1, 2, and 3 greenhouse gas emissions and assess their impacts on the company's operations.	We continued to implement carbon reduction measures and increase the use of renewable, aiming to effectively reduce GHG emissions. For further details, please refer to 3.1.3 Greenhouse Gas and Energy Management.
	Conduct an annual review of our climate management goals.	The ELT regularly reviewed the outcome of projects implemented by various functional units and the achievement against indicators and targets.

Climate Management

In 2022, TSRC's Board of Directors held meetings in January, May, and August to be noted about the TSRC transition and physical risks, the extent of climate risk, strategies, goals and countermeasures, and opportunities identified by TSRC due to climate change. At the same time, the ESG work team reports to the ELTs on the implementation of climate-risk targets in written or physical meetings on a quarterly basis. The targets cover greenhouse gas reduction, renewable energy use, water resource utilization, use of renewable raw materials, reduction of product carbon footprint, development of new products, and development of new businesses, etc. TSRC's organizational structure for climate risk management are as follows:



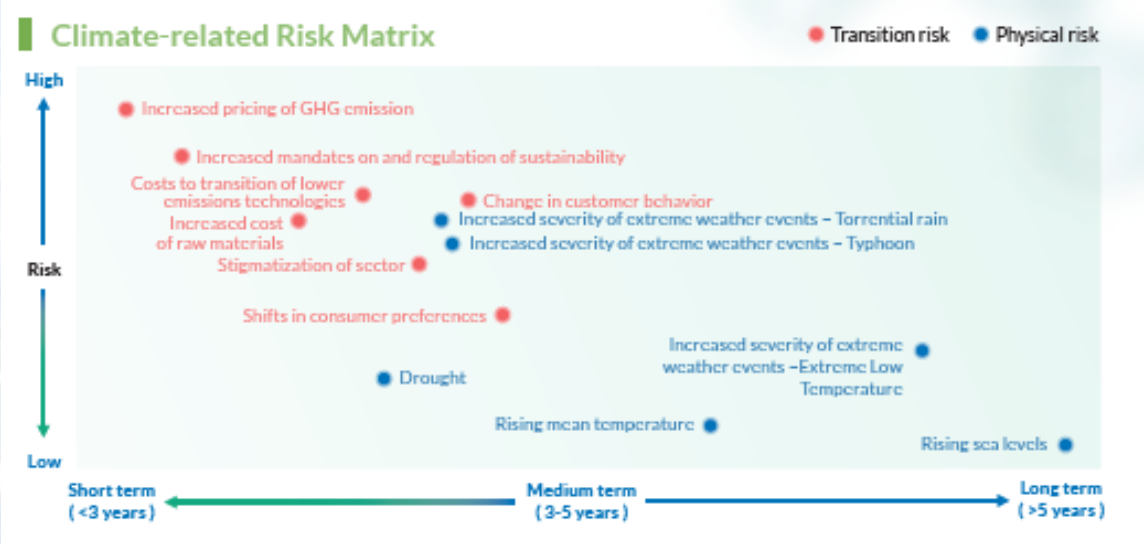
Climate-related Risks and Opportunities

With reference to risks and opportunities recommended by the TCFD, international sustainability indicators, and industry benchmarks and the consideration of TSRC's operation, TSRC identified 13 climate-related risks and 5 opportunities. Risks include transition risks such as policy and market and physical risks such as acute extreme weather events and chronic risks. Opportunities include products and service development.

To understand the impact of climate-related risks on TSRC's value chain, the ESG Section and executives from subsidiaries assessed the impact of each risk on TSRC's upstream suppliers, own operations, and downstream customers. The degree of impact is ranked in a three-level scale and arranged by serial percentile, and it serves as a reference for business strategies. The scores was calculated respectively per region where TSRC subsidiaries are located (China, Taiwan, the United States, and Vietnam) and aggregated together with the weight of revenue proportion of each region. The scores were arranged by serial percentile to develop TSRC's climate-related risk matrix.

On the basis of the impact of climate-related risks on TSRC's value chain and the risk matrix, the ESG Section discussed relevant opportunities, operational strategy adjustments, and response measures. Strategies and measures were formulated under the ELT's supervision and implemented in daily operations.

TSRC will continue to expand the scope of the quantitative risk impact assessment to analyze the financial impact of medium- and low-risk projects, review the company's risk tolerance level, and build up countermeasures.



Financial Impact Assessment of the Climate-related Risk

With consideration to the company's business strategies and international carbon reduction trends and efforts, TSRC assesses the financial impact of increased pricing of GHG emissions with reference to policies and industry benchmarks. As climate change becomes even more severe, the implementation of carbon border adjustment mechanism (CBAM) and domestic carbon emissions fee may increase customers' costs when importing TSRC's products. Such policies and regulations may affect TSRC and upstream suppliers, causing the increasing cost of raw materials, equipment, and electricity. In light of the knock-on effect, TSRC analyzes the corresponding financial impact of the increasing upstream cost, the policy of GHG emission fee on TSRC and the reducing and transferring orders of customers. For further details, please refer to the TSRC Sustainability Report 2021. The financial impact will be updated gradually once relevant policies become clearer, and TSRC will continue to conduct the assessments on other climate-related risks.

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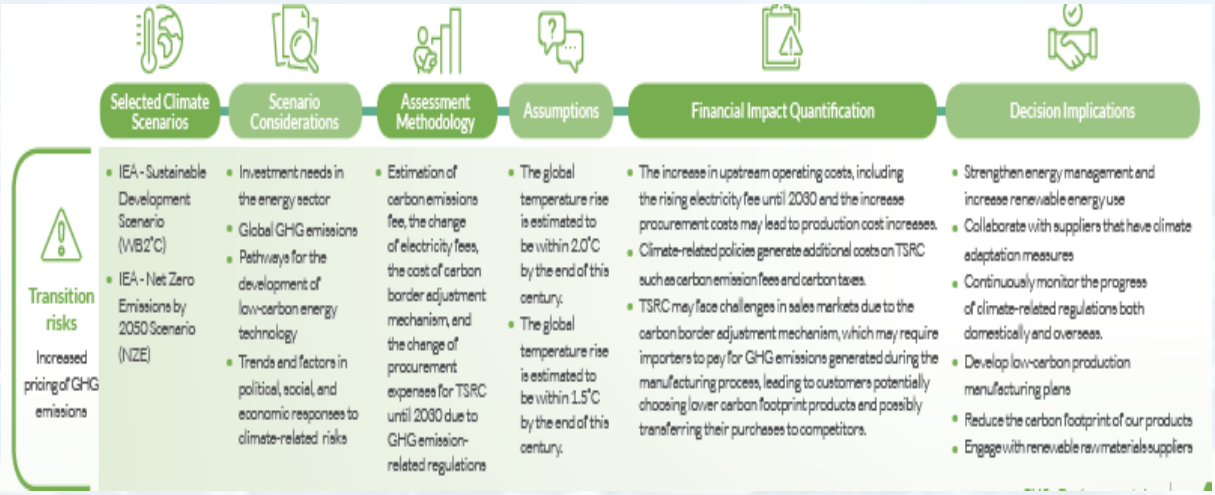
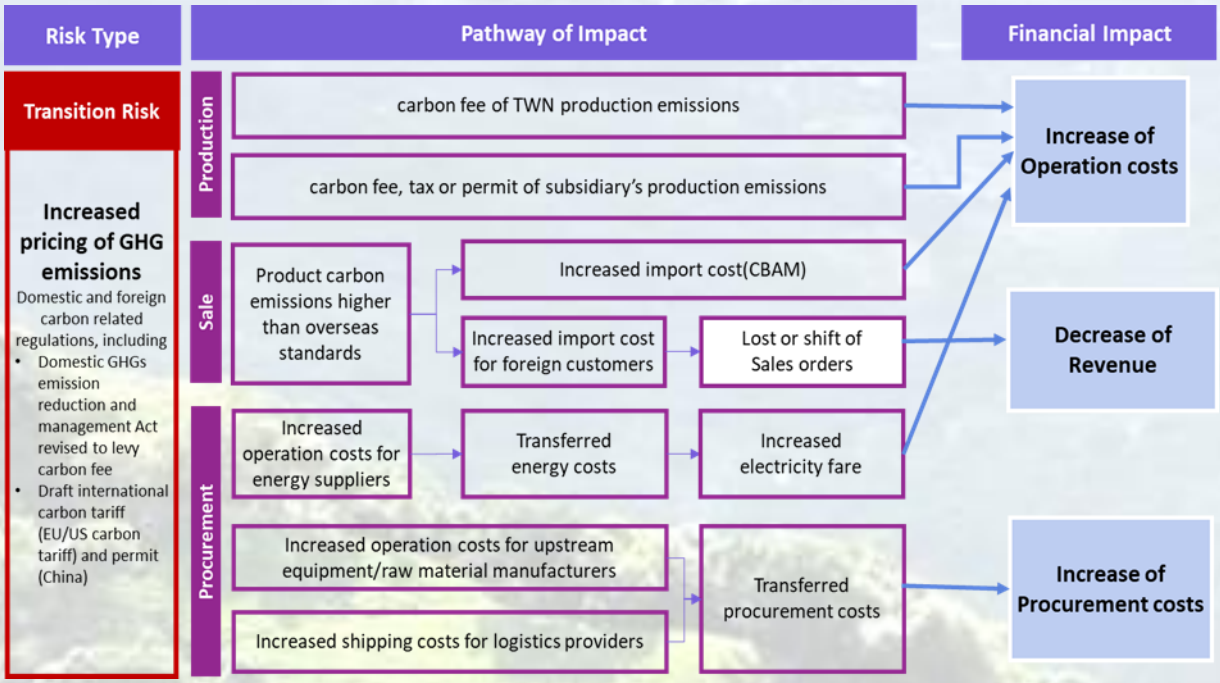


Risk: Increased cost of GHG emissions



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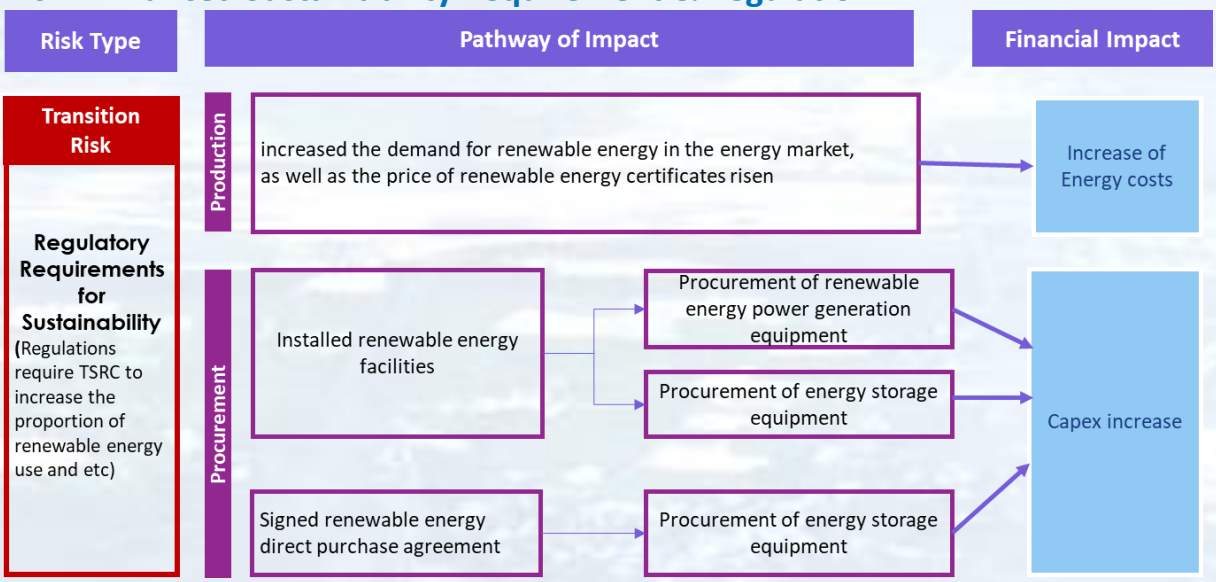
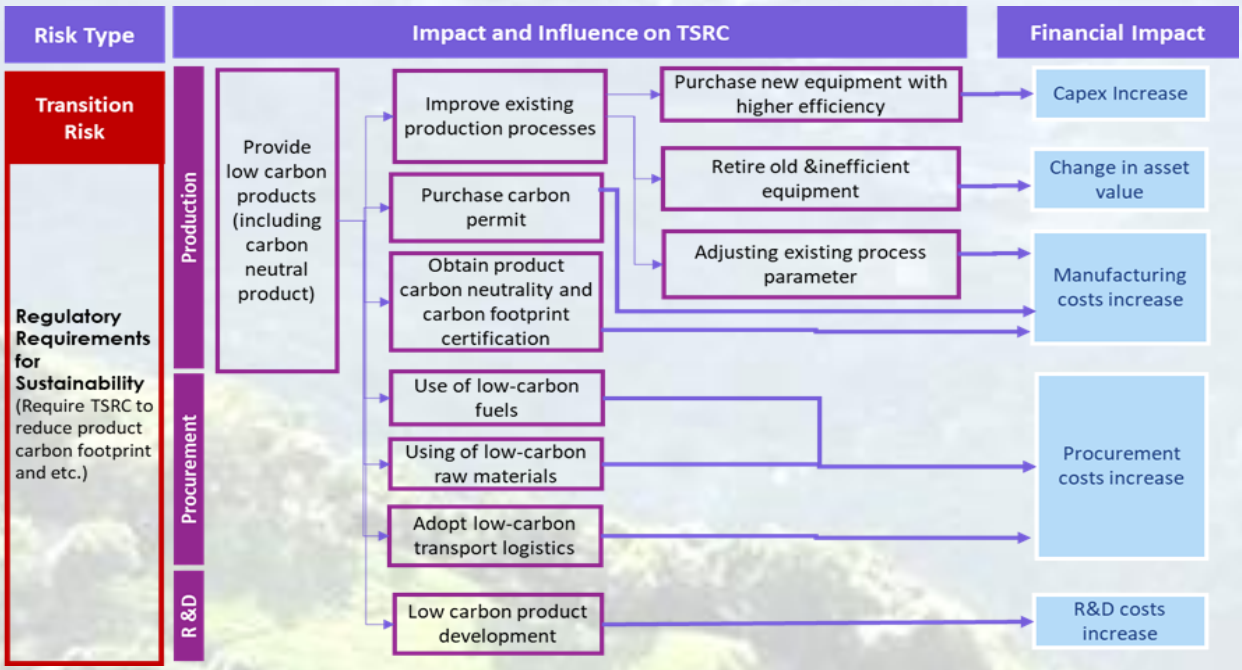
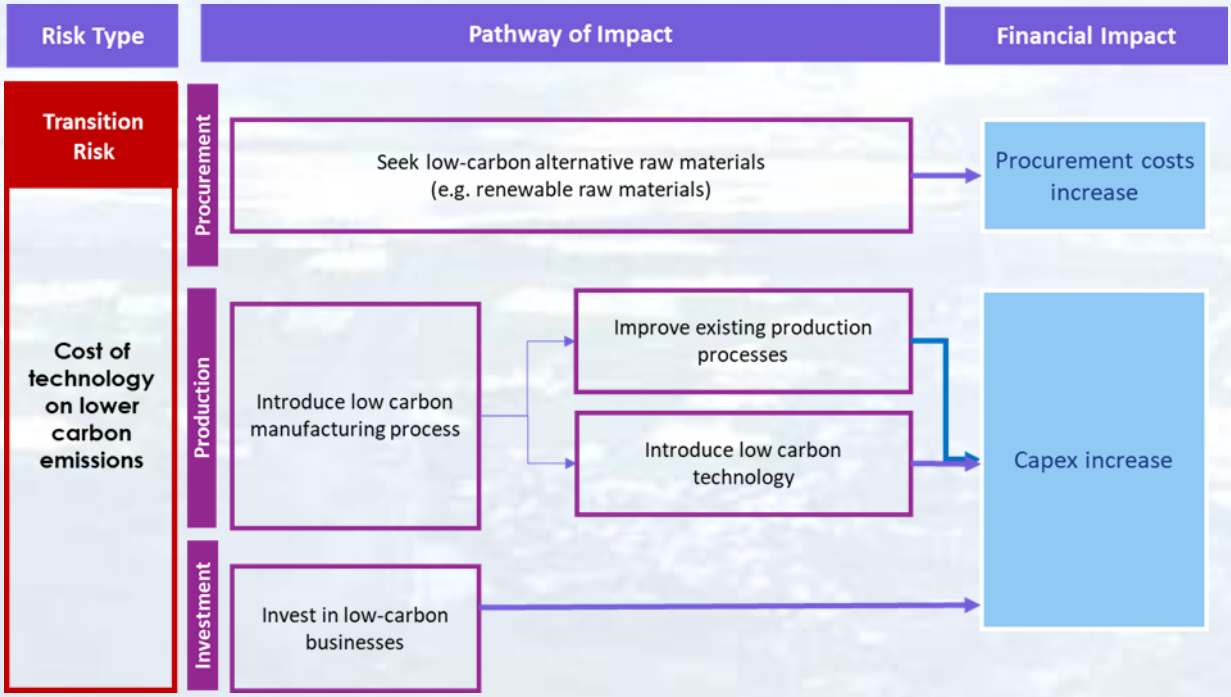
Risk: Enhanced Sustainability Requirement & Regulation





Risk: Technology Cost to Transition to Lower Emissions



Financial evaluation on climate risk

With consideration of the Company's business strategies and international development trends in carbon management, TSRC first assessed the financial impact of "increased cost of GHG emission" with reference to examples of climate risk disclosures by domestic and overseas benchmarks in the industry. As climate change becomes even more severe, countries intend to implement climate-related policies. For instance, the international carbon tariff and Taiwan’s carbon pricing are to charge a certain fee on companies whose GHG emissions exceed the allocated amount. This may increase costs when customers import TSRC's products. Furthermore, carbon pricing-related policies and regulations will not only affect TSRC but also impact suppliers. The cost of raw materials, equipment, and electricity may gradually increase. Hence, TSRC dived into the three dimensions—the increase in upstream costs, climate-related policy proposals, and customers shifting or reducing purchase orders—to assess the corresponding financial impact.

1. The increase of upstream costs:

TSRC will increases procurement costs due to climate factors in 2023-2030. In terms of electricity, considering that power companies located in the same region as TSRC's business sites may increase costs due to responding to climate change and incorporating new energy (e.g., renewable energy) into the portfolio, the electricity price may rise by 2030. Furthermore, the cost of electricity may continue to increase until 2030 due to

electricity purchases under TSRC's carbon reduction strategy. As for the cost of raw materials, equipment, and logistics, the production cost of suppliers may increase due to controls on carbon emissions in the country where they are located, the charge of a carbon tax and carbon fees, or the implementation of a carbon trading system. Suppliers may transfer their costs to TSRC. In response to the continued increase in upstream costs, TSRC is actively implementing energy transformation and plans to work with new suppliers that have completed climate response measures, establishing a supply chain with climate resilience. We will also periodically examine upstream costs to lower the financial impact of this risk.

2. Climate-related policy proposals

TSRC evaluates the additional carbon fees that production sites may need to pay while the overall GHG emissions decrease each year, with consideration of the proposed regulations of countries where our main production sites are located, including Taiwan's "Climate Change Response Act (Draft)", California's Western Climate Initiative (WCI), emissions quota in China's "Interim Regulations on the Management of Carbon Emissions Trading" and "Measures for the Administration of Carbon Emissions Trading (for Trial Implementation)", and the amendment to Vietnam's Environmental Protection Act. We also reference domestic and overseas carbon pricing research reports, as well as the spot price of the carbon exchange. Our analysis shows that the cost of carbon emissions that our business sites need to pay until 2030 in the 1.5˚C and 2.0˚C scenarios will increase each year along with the carbon pricing. Furthermore, TSRC also considers the potential impact of carbon tariffs when products are exported in the future. According to carbon tariffs that have been formulated and implemented on a trial basis by other countries, such as the Carbon Border Adjustment Mechanism (CBAM) announced by the European Union, TSRC's carbon tariffs cost will be peak in 2026 in the 1.5˚C and 2.0˚C scenarios. As the carbon pricing and carbon tariffs increase but our carbon emissions per unit product decrease until 2030, the amount of payment of carbon tariffs will decrease each year. Forward looking, TSRC will continue to monitor the progress of climate-related legislation in Taiwan and overseas, and periodically examine if the direction of TSRC internal carbon reduction strategies meets the requirements of authorities. We will make corresponding improvements and adjustments to business strategies, in order to minimize the financial impact of climate-related policies.

3. Challenges from the market:

In response to the climate-related policies of different countries, the carbon tariffs scheme may also impact the downstream of the value chain. Since customers may need to bear the cost of carbon tariffs when they import TSRC's products, it may cause customers to shift or reduce purchase orders. TSRC references the "Report on the Manufacturing Purchasing Managers' Index (PMI)" published by the Chung-Hua Institution for Economic Research and the China Manufacturing PMI released by the National Bureau of Statistics

of the Peoples Republic of China to assess the value and market position of products. We assume that a certain percentage of customers will shift their purchase orders due to carbon tariffs and related fees in the future and assess the financial impact on this basis. TSRC's main strategy is to reduce carbon emissions from its operations or reduce the carbon footprint of its products, and thereby provide customers with more competitive products and services with respect to carbon reduction, continuing to lower business or market risks.

Regarding the 13 climate-related risks and 5 climate-related opportunities identified by TSRC, TSRC has assessed the potential impacts on our operations and financial planning, and formulated relevant risk and opportunity response measures as shown in the table below:

Risk	Profile	Risk Item	Impact of Risk	Strategy & Measures
Transition Risk	**Legal**	**Increased cost of GHG emission**	TSRC will need to pay carbon fees, carbon tax, and carbon tariffs for its products, and will also need to pay fees if GHG emissions exceed the quota due to climate-related policies and regulations of other countries (such as carbon tax/tariffs, carbon trading system, and carbon price/fees). Controls may become stricter each year and carbon fees and taxes will gradually increase.	• Reduce carbon emissions from processes and products • Improve energy efficiency of processes and use renewable energy • Develop renewable raw materials • Continue to develop low-carbon solutions
Transition Risk	Legal	Enhanced sustainability requirement and regulation	The international trend of net zero emissions has caused sustainability requirements and regulations to increase, and also affected customers' requirements on products. This has caused TSRC to accelerate its climate actions, such as increasing the ratio of renewable energy use, reducing the carbon footprint of products, improving environmental safety and management, and increasing the transparency of information	• Accelerate the reduction of product carbon footprint • Improve energy efficiency of processes and use renewable energy • Develop renewable raw materials • Optimize water resource use • Waste reduction management

Risk	Profile	Risk Item	Impact of Risk	Strategy & Measures
			on green chemistry and related information.	
Transition Risk	Technology	Technology costs to transition to lower emissions	In response to the global trend of sustainable development, TSRC is gradually planning low carbon transformation. After evaluating technologies of carbon reduction and equipment currently available in the market or being developed, the cost of low carbon technologies, maturity of technologies, and large-scale commercialization will affect TSRC's carbon reduction cost and return on investment.	• Jointly develop high performance equipment and technology and products together with partners • Replace old electricity consuming equipment • Actively search for low carbon transformation talent, and train employees for the low carbon transformation era • Assess low carbon investments within an acceptable scope of risk •
Transition Risk	Market	The Change in customer behavior	Customers switch to raw materials and products with lower carbon emissions and environmental impact in response to the global trend of net zero emissions and to reduce impact on the environment. Customers may also require that the Company provide products/ services with more transparent environmental information.	• Use more efficient transportation models • Develop products/services with low carbon emissions and environmental impact • Provide customers with customized services

Risk	Profile	Risk Item	Impact of Risk	Strategy & Measures
Transition Risk	Market	Increased cost of raw materials	In response to the IPCC's study, the world will gradually transition to low carbon energy sources before 2050. It is expected to entirely eliminate fossil fuels by 2100. In the long-term, TSRC's value chain will significantly increase raw materials costs	• Continue to require suppliers to engage in climate adaptation and energy transformation, and develop a supply chain with climate resilience • Continue to develop renewable raw materials
Transition Risk	Reputation	Stigmatization of sector	Emphasis on climate change issues will continue to increase. Stakeholders prefer companies with low carbon emissions or have a positive impact on humanity or the environment. The petrochemical industry has the stigma of having high carbon emissions and high pollution.	• Strengthen response and prevention of climate change • Appropriate disclosure of company information • Accelerate low carbon transformation and GHG management • Optimize water resource use • Improve communication with stakeholders
Transition Risk	Reputation	Shifts in consumer preferences	Extreme weather events can easily affect the stability of supply chains, and customers may switch to local suppliers. Furthermore, customers prefer low carbon raw materials and sustainable products. TSRC has to understand customers' needs and enhance the competitiveness of products.	• Implement climate risk assessment and continue to improve the prevention measures and response mechanisms of each production location • Strengthen the stability of local supply • Strengthen communication with customers and understand their needs

Risk	Profile	Risk Item	Impact of Risk	Strategy & Measures
Physical Risk	Acute	Increased severity of extreme weather events – Heavy Downpours	When the frequency and rainfall of heavy downpours increases, it may damage production sites, causing services to be suspended, or preventing employees from going to work	• Strengthen flood prevention measures and response measures at production locations • Establish a manpower allocation mechanism
Physical Risk	Acute	Increased severity of extreme weather events – Hurricane/ typhoon	Increase in frequency and intensity of hurricane/typhoon will have the following impact: • Hurricane/typhoon may destroy power systems and cause power outage in certain regions, causing business or service suspension • Hurricane/typhoon causes disruption of supply chain • Increase in insurance premiums for assets in "high risk" regions will increase operating costs	• Strengthen loss control measures of production locations with an emphasis on flood prevention • Strengthen emergency response measures • Establish a manpower allocation mechanism • Step up the localization of suppliers
Physical Risk	Acute	Increased severity of extreme weather events – Drought	Water supply may be cut off due to droughts. Water shortage will increase water fees and external water sources to be cut off. This will affect process water consumption and may cause operating shut down	• Implement water conservation measures • Strengthen process wastewater recycling and improve water resource usage efficiency • Increase use of recycled water • Strengthen emergency supply mechanisms

Risk	Profile	Risk Item	Impact of Risk	Strategy & Measures
Physical Risk	Acute	Increased severity of extreme weather events – Extreme Low Temperature	Sudden drop in temperature or snowstorm may have the following impacts: • Extreme low temperature events may cause water pipes, equipment, and instruments of operations or production locations to become frozen, which will cause water pipes to rupture, instruments to be damaged, and further cause supply chain disruption • Employees will not be able to go to work when roads are closed, which will lower production capacity and increase operating costs	• Strengthen loss control measures of production locations with an emphasis on low temperature prevention • Strengthen emergency supply mechanisms
Physical Risk	Chronic	Rising mean temperature	Global climate change will extend the drought season in East Asia and increase the duration of extremely high temperatures, which will cause the following impacts: • Cause employees to have a heat stroke or other health conditions, resulting in lower work efficiency • Persistent high temperature may increase electricity demand or impact production performance • Drought caused by persistent high temperature creates the risk of business suspension	• Continue to carry out equipment maintenance and monitor electricity consumption to maintain the stability of electricity consumption • Strengthen process wastewater recycling and improve water resource usage efficiency • Strengthen emergency supply mechanisms
Physical Risk	Chronic	Rising sea levels	Sea level rising will cause business and production sites to be flooded	Strengthen loss control measures of production locations with an

Risk	Profile	Risk Item	Impact of Risk	Strategy & Measures
			and result in significant financial losses	emphasis on coastal areas

Opportunities	Name of opportunity	Impact on TSRC	Measures or Development
Products and Services	Development and/or expansion of low emission goods and services	Evaluate the development of low carbon markets and market demand of each country, provide low carbon solutions to help customers produce low carbon products and expand their market share, and continue to maintain the Company's competitiveness by meeting customers' needs	• Develop high-value low-carbon products or reduce the environmental impact of products • Help customers reduce the carbon footprint of their products or reduce their environmental impact
	Development of climate adaptation solutions	As extreme weather events continue to occur, provide customers with products for responding to extreme weather events	• Develop products with climate tolerance
Resource Efficiency	Use of more efficient production and distribution processes	• Work with value chain partners and adopt highly efficient transportation processes to increase resource efficiency and lower operating costs. • Adopt highly efficient processes to reduce resource use and lower operating costs	• Equipment replacement • Implement energy conservation and carbon reduction plans • Establish water-saving processes or increase recycled water processes • Increase renewable energy use and take energy conservation measures • Promotion of waste recycling and reuse

			• Select low carbon transportation to deliver products
Market	Increase sustainable financing	Good ratings from international investment and rating institutions for the Company's ESG performance will help the Company attract capital	• Strengthen contact and communication with stakeholder • Complete and timely disclosure of ESG performance • Strengthen risk management and supervision mechanisms • Implement climate risk assessment and response mechanisms
	Positive reputation	In-depth connection with SDGs and gaining a good business reputation will have a positive impact on the Company	• Expand stakeholder communication in climate issues • Disclose the Company's connection to the SDGs and results of efforts

Targets and Indicators

TSRC sets short- and medium- goals to mitigate climate-related risks in response to the potential impact and challenges. These climate-related goals are integrated into the annual work plan and the performance evaluation of the ELT, and TSRC Board of Directors supervises and oversees the performance.

Focus area	Target	Corresponding Climate-related △Risk and ○Opportunity	Stage-by-Stage Targets			Corresponding Chapter
			2023	2025	2030	
Towards Carbon Neutrality Operation	Reduce Scope 1+2 emissions (Base year:2021)	△Increased pricing of GHG emissions △Stigmatization of sector ○Use of more efficient production and transportation process	Total carbon emissions reduction by 5%	Total carbon emissions reduction by 10%	Total carbon emissions reduction by 22.5%	3.1.3 Greenhouse Gas and Energy Management
	Increase the use of renewable energy	△Increased pricing of GHG emissions △Increased mandates on and regulation of sustainability	Increase renewable energy to 5% of total electricity consumption	Increase renewable energy to 10% of total electricity consumption	Increase renewable energy to 80% of total electricity consumption	3.1.3 Greenhouse Gas and Energy Management
Water Resource Optimization	Increase wastewater recycling	△Increased mandates on and regulation of sustainability △Stigmatization of sector △Drought △Rising mean temperatures ○Use of more efficient production and transportation process	Increase wastewater recycling to 25% of total volume of wastewater	Increase wastewater recycling to 36% of total volume of wastewater	Increase wastewater recycling to 40% of total volume of wastewater	3.4.3 Water Resource Recycling
	Increase recycled water utilization		Increase recycled water utilization to 15% of total water consumption	Increase recycled water utilization to 34% of total water consumption	Increase recycled water utilization to 40% of total water consumption	3.4.2 Water Resource Management
Lower Products' Carbon Footprint	Develop eco-friendly products	△Increased mandates on and regulation of sustainability △Change in customer behavior ○Development of low carbon emission or low environmental impact products and services ○Development of climate adaptation product	Develop special styrene block copolymer (SBC) for medical equipment, shoe materials, plastic modification, aiming to increase recyclability and decrease medical waste	Develop new type of special styrene block copolymer (SBC) to support customers to reduce energy consumption and organic solvents in production process	Develop medical TPE products for reducing medical waste by 10% compared with previous generation products (based on sales projection)	3.2.2 Product Accountability and Green Product Design
			Develop eco-friendly foaming product	Develop eco-friendly foaming products with recyclability	Develop eco-friendly foaming products that use renewable materials and more recyclability	3.2.2 Product Accountability and Green Product Design
			Develop special styrene block copolymer (SBC) for medical equipment, shoe materials, plastic modification, aiming to increase recyclability and decrease medical waste	Develop new type of special styrene block copolymer (SBC) to support customers to reduce energy consumption and organic solvents in production process	Develop medical TPE products for reducing medical waste by 10% compared with previous generation products (based on sales projection)	3.2.2 Product Accountability and Green Product Design

Focus area	Target	Corresponding Climate-related Risk and Opportunity	Stage-by-Stage Targets			Corresponding Chapter
			2023	2025	2030	
Lower Products' Carbon Footprint	Product process optimization	△Costs to transition of lower emissions technologies ○Use of more efficient production and transportation process	Optimize production process of TPE products and reduce use of steam to achieve 1,800 mt of carbon emissions reduction per year	Optimize production process of TPE products to reduce electricity and energy consumption	Optimize production process of TPE products and reduce electricity and energy consumption to achieve 9,000 mt of carbon emissions reduction per year	3.2.2 Product Accountability and Green Product Design
	Use of renewable materials Note	△Increased mandates on and regulation of sustainability △Increased cost of raw material	Explore and engage with renewable raw material suppliers	Renewable raw materials account for 5% of total raw material purchase	Renewable raw materials account for 15% of total raw material purchase	3.2.2 Product Accountability and Green Product Design
Strengthen Corporate Governance	Enhance risk & crisis management	△Increased severity of extreme weather events - Typhoon △Increased severity of extreme weather events – Storm △Increased severity of extreme weather events–Extremely low temperature △Rising sea levels ○Increased access to new financing from stakeholders ○Improvement on positive reputation	Refine climate risk management mechanism, protection measures, and timely disclosure	Strengthen risk monitoring and improve operation management via digital management system	Continuous improvement on global risk management and crisis response mechanisms	6.1.2 Keeping Abreast of Climate Risks and Opportunities
Build Resilient Operation	Accelerate reduction of supplier's GHG emission	△Increased cost of raw material	Require top 20 suppliers (by purchase spent) to implement GHG emission reduction target and actions	Require top 50 key suppliers by purchase spent) implement GHG emission reduction target and actions	Require all suppliers implement GHG emission reduction target and actions	2.3.2 Supplier Management
	Strengthen supply chain integrity	△Increased severity of extreme weather events - Typhoon △Changing in customer behavior ○Use of more efficient production and transportation process ○Increased access to new financing from stakeholders	>70% (total purchase spent) of raw materials from local sourcing and develop local suppliers of renewable raw materials	>75% (total purchase spent) of raw materials from local sourcing and develop local suppliers of renewable raw materials	>80% (total purchase spent) of raw materials from local sourcing and develop local suppliers of renewable raw materials	2.3.3 Green Procurement and Local Procurement

Note: Renewable materials: (1) Agriculture based (2) Bio-based (3) Waste of other products