



台橡股份有限公司
TSRC CORPORATION

FAQ

for

ESG

Content

✚ ESG Strategy & Targets	3
✚ Coporate Policy	5
✚ GHG & Energy efficiency	7
✚ Enahncement of Water Use	10
✚ Reinforcement of Waste Management	13
✚ Divisity & Human Right	16
✚ Climate Risk and Oppertunity	19
✚ Management System & Certification	20

ESG Strategy & Targets

Q1: Does TSRC have an ESG strategy ?

1. TSRC's ESG strategy and targets are planned by the ESG Steering Committee and approved by the Board of Directors. The strategy includes environmental, social, and governance promotion and medium and long-term targets to promote operational growth and strengthen the company's operational resilience.
2. For ESG strategy, please refer to the Company's website [ESG strategy](#)

Q2: Does TSRC have a target-Net Zero?

1. TSRC has set a short & medium-term target for group based on SBTi guideline and take 2021 as base year of the Group's GHG emissions (Scope 1 and Scope 2). TSRC expects to reduce its GHG emissions by 10% in 2025 and 22.5% in 2030 compared to the base year. °
2. TSRC will comply with national policies and continue to evaluate the company's long-term development to reduce GHG and move toward carbon neutral operations. °

Q3: Does TSRC have ESG Targets?

1. TSRC has set short, medium, and long-term targets for the environmental, social, and governance, as described on the Company's website. [ESG Targets](#) °

Q4: Are the compensation of TSRC's executive leadership linked to ESG Targets & Performance?

1. TSRC's compensation plan for executive leadership (including salary, KPI,

and bonuses) is planned annually in accordance with the Company's delegation of level, submitted to the Compensation Committee for discussion, and approved by the Board of Directors.

2. Given the importance of the Group's key ESG targets (e.g. the reduction of greenhouse gas emissions and the improvement of the wastewater recycling rate) to the company, the KPI or action items of TSRC executives including CEO and functional head include key ESG targets and related action plans, and are incorporated into the company's annual Key objectives to effectively promote implementation.

Corporate Policy

Q1: Does TSRC have an environmental, safety and health policy??

1. TSRC has an environmental policy, please refer to our website for details- [Environmental Policy](#).
2. To continuously strengthen the environmental safety management and product responsibility, in addition to the environmental policy, we have formulated the "No Hazardous Substance Policy", "Safety and Health Policy", "Energy Policy", and "Quality Policy", and the details of these policies can be found on the Company's website- [Policy](#).
3. For environmental protection, TSRC has formulated the Group's environmental policy with reference to the United Nations Global Compact and government regulations. In response to climate change and environmental challenges, TSRC takes a proactive approach to carbon reduction, emphasizes environmental responsibility, and devotes itself to the development of products and services that mitigate the impact on the environment. For more information on environmental management and environmental safety and health system, please refer to the company's website – [Environment](#).

Q2: Does TSRC have a human rights policy?

TSRC has an personnel rights and interests protection policy, please refer to the company's website for details-[The Personnel Rights and Interests Protection Policy](#) °

Q3: Does TSRC have an employee welfare mechanism?

TSRC has established an employee welfare mechanism in accordance with local laws and regulations, please refer to our website for details-[employee welfare](#) .

Q4: Does TSRC have a corporate governance policy ?

TSRC has established internal policy related to corporate governance to enhance the effectiveness of corporate governance and operational stability, including the "[Corporate Governance Guidelines](#)", "[Code of Ethics](#)", "[Management Procedure for Insider Trading](#)", and "[Management Procedure for Antitrust Compliance](#)".

Q5: Is there a whistleblower mechanism at TSRC?

TSRC has constituted internal rules and a "[Management Procedure for whistleblowing](#)" to deal with unlawful, dishonest, or unethical behavior of its personnel, as well as a "whistleblowing mailbox" on our website for internal and external reporting.

Q6: Is there a sustainable supplier or procurement policy at TSRC?

Based on the Code of Conduct for Responsible Business Associations and with reference to relevant international standards, TSRC has formulated the "[TSRC Group Supplier Code of Conduct](#)", which regulates suppliers' integrity, human rights and labor policies, occupational safety and health, and environmental protection, among other sustainability-related issues, and requires suppliers to comply with it as an important basis for our purchasing decisions.

Q7: Does TSRC have cyber security policy ?

TSRC has formulated the "[Cyber security Policy & Management](#)" and continues to strengthen the Group's information security prevention mechanism in response to changes in the external environment. For the annual implementation status, please refer to the [Cyber security implementation status](#).

GHG & Energy Efficiency

Q1: Does TSRC Group conduct greenhouse gas emission inventories?

1. In response to Net Zero globally, we actively manage greenhouse gas emissions at all production sites, invest in the energy-saving technologies and increase the use of renewable energy sources, and do the filing in accordance with the requirements after completing an organizational inventory and verification at each site annually.
2. Please refer to the link for [GHG emission](#) in TSRC group.
3. TSRC Group (including its subsidiaries) conducts annual greenhouse gas inventories and has obtained [ISO14064 certification](#).

Q2: Does TSRC have a greenhouse gas reduction target? ?

1. In response to global climate action, TSRC has adopted the vision of moving toward carbon neutrality. Considering the boundaries of the organization's scope of work and production capacity, TSRC has set the carbon reduction target with the base year in 2021, taking into account the SBTi recommendation of using the most recent year of available data as the base year. Because the group begin to consistently adopt the ISO14064-1:2018 for conducting inventories in 2021, TSRC has set the carbon reduction target with the base year in 2021. TSRC aims to reduce greenhouse gas emissions in scope 1 & 2 by 5% in 2023, 10% in 2025, and 22.5% in 2030. We will continue to invest in green process technologies and increase the use of renewable energy, and actively implement measures related to energy conservation and carbon reduction.
2. The Company is currently in the process of evaluating scope3's reduction and will disclose the targets once they are confirmed.

Q3: Does TSRC have a Net Zero target ?

1. TSRC, with reference to SBTi, has set a medium-term Group carbon reduction target, taking 2021 as the base year for the Group's GHG emissions (Scope 1 and Scope 2), with a projected reduction of 10% by 2025, and a reduction of 22.5% by 2030 compared to base year.
2. TSRC will cooperate with national policies and continue to evaluate the company's long-term development and will continue to reduce greenhouse gas emissions to move toward carbon-neutral operations.

Q4: Does TSRC plan to accelerate energy efficiency or renewable energy use.?

1. TSRC, as a manufacturer of specialty chemical materials, takes the GHG reduction in scope 1 and 2 as a priority. Meanwhile, TSRC optimizes processes and utility systems, and strengthens innovation toward green processes.
2. TSRC's energy efficiency program includes the promotion of low-carbon manufacturing processes. TSRC is committed to promoting energy saving in manufacturing processes, continuously optimizing process operations and utility systems in all of plants and investing in higher efficiency equipment as the main direction for carbon reduction. Through annual replacement of energy-consuming equipment, installment of energy-saving devices, and new stripper heat recovery technology, TSRC has been able to reduce the use of electricity and steam. In addition to lowering the use of purchased steam in Scope 2, it has also been able to lower the amount of natural gas used because of the reduction in the amount of steam used in its manufacturing processes.
3. In addition, TSRC plans to gradually increase the use of renewable energy by building up solar panel, purchasing green power agreements, renewable energy certificates, or other means at production sites in Taiwan and Mainland China, and expects to achieve a group target of renewable energy by 5% in 2023, 10% in 2025, and 30% in 2030 which also contributes to group carbon reduction.

4. Please refer [sustainability report](#) for the detailed description of the annual greenhouse gas and energy efficiency improvements at TSRC.

Enhancement of Water Use

Q1: Does TSRC have water resource management policies or guidelines?

1. TSRC incorporates water resource risks into the company's overall risk management system and climate risk. TSRC conducts regular water resource risk assessments at each site and reviews related measures annually.
2. TSRC has established a three-pronged approach to water resource management- “efficient water use, recycling, and clean discharge.” TSRC continues to increase the recycling rate of process wastewater, increase the proportion of recycled water used, reduce the use of water resources around its operations, and minimize the amount of process wastewater entering the industrial wastewater treatment plant.
3. TSRC has set targets for wastewater recycling, with wastewater recycling accounting for 25% of total wastewater in 2023, 36% in 2025, and 40% in 2030. In addition to condensate and process wastewater recycling, TSRC plans to build reclaimed water facilities at production sites or increase the purchase of reclaimed water to improve the stability of water resources. TSRC expects that the Group's use of reclaimed water will account for 15% of its total water consumption in 2023, 34% in 2025, and 40% in 2030.
4. TSRC discloses its water management data and strategies every year, and provides annual stakeholder feedback through questionnaires to understand stakeholders' suggestion and feedback on TSRC's actions. °

Q2: Does TSRC have water consumption plan ?

1. The water resources used by TSRC at its various sites mainly come from the tap water provided by the water company. In recent years, TSRC has also

gradually installed process water recycling and recycling equipment to reduce the total amount of water withdrawn from outside the plant and to reduce the burden on the local water resources.

2. According to the World Resources Institute's (WRI) Aqueduct Water Risk Assessment, among TSRC's manufacturing plants (including Mainland China, Taiwan, the U.S., and Vietnam), Mainland China has the greatest pressure on baseline water resources, with "moderate to high risk (20-40%)"; the U.S. has "low to moderate risk (10-20%)"; and Vietnam and Taiwan have low risk. However, on a county and city scale, Kaohsiung plant is at high risk of drought from the past years to the coming years (2015-2039), regardless of the dry and abundant water periods, while Jiangsu province in Mainland China, Louisiana in the U.S., and Binh Duong in Vietnam are all at low to medium risk.
3. TSRC is proactively managing its water resources. For more information on the Group's water resources, please refer to the link "[Water Resources Management](#)."

Q3: Does TSRC have a wastewater management mechanism ?

1. TSRC's production sites are all located in local industrial zones and are subject to the regulations and supervision of the authorities in charge of the industrial zones. TSRC recycles wastewater from manufacturing processes and operations to minimize wastewater discharges. Wastewater that cannot be recycled and reused is pre-treated in the factory and discharged into the wastewater treatment system in the industrial area after confirming compliance with local discharge monitoring standards and discharge limits for priority substances. In 2022, TSRC will not violate any wastewater regulations or fail to meet the discharge limits of priority substances of concern.
2. For more information about the annual wastewater recycling and treatment data, please refer to the link "[Wastewater Management](#)."

Q4: Does TSRC have a wastewater recycling target ?

1. To minimize the impact of water resources on operations and move toward zero wastewater discharge, TSRC has taken into account the efficiency of water use and discharge and has actively strengthened water recycling measures in recent years to increase the recycling of water resources in the plants.
2. To reduce the risk of climate change-related water resources and increase operational stability, TSRC has continued to increase capital expenditures to strengthen the Group's wastewater recycling rate. TSRC will increase wastewater recycling equipment in TN and TU in 2023, and in response to Kaohsiung's water restriction in 2023, TSRC will plan for measures in advance, including the installation of additional purchased water pipelines and consulting on the availability of reclaimed water, etc. In 2023, we aim to achieve a wastewater recycling rate of 25% and a reclaimed water usage rate of 15%; in 2025, the wastewater recycling rate will be 36% and the reclaimed water usage rate will be 34%; and in 2030, we will achieve the "Double 40" targets: the wastewater recycling rate and the reclaimed water usage rate will both be 40%.
3. For TSRC's wastewater recycling data, please refer to the link "[Wastewater Recycling implementation.](#)"

Reinforcement of Waste Management

Q1: Does TSRC have a waste management policy or targets ?

1. TSRC emphasizes its corporate responsibility to protect the environment by adopting high standards of environmental management at each of its operating sites, including air pollution, waste, soil and groundwater contamination, and other substances that may have an impact on the environment. Through the ISO 14001 environmental management system, TSRC continues to promote energy conservation, waste reduction, air pollution prevention, wastewater reduction and recycling, conducts regular comprehensive reviews, and uses technology to monitor plant areas and perimeters to comply with local regulations. TSRC's environmental management strategy focuses on "process improvement" and "environmental monitoring".

Q2: Does TSRC have any investment to mitigate environmental impact?

1. TSRC invests in facilities and equipment to improve the efficiency of manufacturing resources utilization and increase energy saving and carbon reduction, air pollution prevention, waste management, and water resource management to mitigate environmental impacts.
2. The capital expenditure on environmental projects amounting to NT\$139.51 million in 2022, please refer to page 77 of the [Sustainability Report](#) for details.

Q3: Does TSRC have an air pollution prevention and management plan?

1. For the prevention and management of air pollution, TSRC focuses on

strengthening the management of volatile organic compounds (VOCs) at each site. The Kaohsiung plant has been promoting VOCs improvement programs since 2021, such as replacing the Cocker valve with a low leakage type, using a new type of gasket for pipeline flanges, and updating the closed sampling system, etc. TSRC also input an exhaust gas recycling system, which channels some of the exhaust gases into the boilers to recycle heat and reduce the emission of exhaust gases. Subsidiaries such as Shenhua Chemical introduced a VOCs online monitor and linked it to the system of the environmental protection unit, as well as an activated carbon adsorption device in each production site, reducing 0.554 tons of VOCs annually.

2. In addition, the Leak Detection and Repair (LDAR) program in 2022 detected a total of 14,775 leakage points and took timely closure and replacement of old gaskets at the leakage points, which result in an annual reduction of 0.074 tons of VOCs; TN eliminated the fugitive emission of VOCs through the use of equipment such as closed samplers, dry joints, and hoods; TU reduced VOCs emissions through the improvement of M-2 configuration tanks and DEAC configuration tanks, and continuous optimization of equipment containment.
3. The subsidiaries including TN, Shenhua Chemical, and TU were all awarded "No Odor" by the government.
4. TSRC (Vietnam) has introduced scrubber towers to reduce the fugitive emissions of VOCs since 2019 and asked its partner to regularly monitor the VOCs values on a quarterly basis to monitor the removal efficiency of the scrubber towers. TSRC's U.S. subsidiary-TSM has introduced a symbiosis system, which generates electricity and steam to reduce emissions.
5. In addition to focusing on the management of VOCs, TSRC continues to upgrade equipment and optimize manufacturing processes to minimize air pollutant emissions from the production process, and to reduce the risk to the environment and human beings. A review of TSRC's air pollutant emissions over the past three years reveals that sulfur oxide (SO_x)

emissions have continued to decrease. Since Nantong subsidiaries ceased using boilers in 2020, there will be no more volatile organic compounds (VOCs) emissions from boiler combustion across the Group.

6. Please refer to the link for [air pollution management](#).

Diversity & Human Right

Q1: Does TSRC has a human rights policy and guidelines ?

1. TSRC is committed to protecting the rights and interests of human with reference to the “United Nations Universal Declaration of Human Rights”, “the Global Covenants, the International Labor Office Tripartite Declaration of Principles”, and other international human rights standards, and eliminating any infringement or violation of human rights. We prohibit any form of discrimination, forced labor, and child labor, and practice them in our internal operations and management including employees, customers, and suppliers, to ensure that all personnel are treated with fairness and dignity, and to provide a safe, hygienic, and healthy quality work environment, and to ensure the safety and physical and mental well-being of our personnel at work.
2. Please refer to policy as linked “[The Personnel Rights and Interests Protection Policy.](#)”
3. Regarding the implementation of personnel protection policies, including the prevention of harassment and the provision of channels for complaint mechanisms, the prohibition of child labor, the prohibition of forced labor, and the protection of women, etc., please refer to the [measures for mitigating risks to the rights and interests of personnel.](#)

Q2: Does TSRC have diversity plan ?

1. We create a diverse and equal working environment, emphasizing labor rights and gender equality. We recruited professional and talents without regard to age, gender, region, religion, marital status, sexual orientation, etc. We continue to attract talented people from all over

the world to join TSRC through various channels such as industry-academia cooperation and corporate internships. We continue to attract talented people from all over the world to join TSRC through industry-academia cooperation, internships, and other channels to create a culture of diversity and integration, capitalize on the differences and uniqueness of our employees, and motivate and support each other's innovations.

2. In adhering to the principle of equal opportunity, TSRC selects professionals through an public process based on professional competence and work experience.
3. TSRC provides good salary and benefits and has humanized management and sound promotion and development system to actively retain excellent talents.

Q3: Does TSRC have an employee benefit system?

1. TSRC emphasizes employee benefits in compliance with local laws and regulations and provides employee benefit beyond regulations like insurance, meal subsidies, year-end dinners, health check subsidies, travel subsidies, as well as wedding gifts, maternity gifts, and condolences for injuries and illnesses.
2. To appreciate the long term and exemplary staff, special awards will be given to recognize their long term and outstanding contributions and efforts to the Company.
3. We have set up recreation rooms in each plant to enable employees to relax and develop interpersonal relationships after work.

Q3: Does compensation of executive leadership is linked to TSRC ESG performance?

1. TSRC's executive compensation plan (including salary, KPI and bonuses) is submitted to the Compensation Committee periodically for discussion in accordance with the Company's authorities of delegation and is implemented after approved by the Board of Directors.
2. Considering the importance of the Group's ESG strategic targets, linking the executive leadership's KPI with key ESG targets and actions, and implementing them into the company's annual objectives and strengthening the promotion of execution.

Climate-related Risks and opportunities

Q1: Does TSRC have an assessment for climate related risk and opportunities ?

1. In response to the impact of climate risk, TSRC follows the recommendations of the Task Force on Climate-related Financial Disclosures (TCFD) to identify and assess risks, manage and take countermeasures in the four dimensions of governance, strategy, risk management, index and targets, and disclose TSRC's climate-related risks and opportunities to the public.
2. For more information on TSRC's climate risks and opportunities, please refer to the link to [TSRC's Financial Disclosure of Climate-related Risks and 2022 Sustainability Report](#), page 53~59.

Management System & Certification

Q1: Does TSRC have an environmental, safety and health management system?

1. In response to the international trend of carbon reduction and the pressure of scarcity of energy resources, TSRC cherishes the earth resources. To move toward carbon neutral operations, TSRC has set carbon reduction targets, increased the use of renewable energy, increased the proportion of recycled water, and recycled raw materials, and has developed products and services that can assist customers in reducing the use of energy resources. TSRC has enabled it to downstream partners and jointly drive the industry toward a low-carbon era.
2. At the same time, TSRC is committed to environmental protection and manages its operations based on international standards. We minimize the impact on the environment by carefully handling air pollution, waste, soil and groundwater contamination during the manufacturing process.
3. TSRC manages its operations in accordance with the international standard ISO14001 environmental management system, and we have obtained the ISO14001 certificate, which can be found as linked [ISO14001:2015](#).
4. TSRC manages its operations in accordance with the ISO45001 Occupational Safety and Health Management System and has obtained the ISO45001 certificate, which can be found as linked [ISO45001](#).

Q2: Does TSRC have an energy system ?

1. In response to the international trend of carbon reduction and the pressure of scarcity of energy resources, TSRC cherishes the earth resources to move toward carbon neutral operations, TSRC has set carbon reduction targets, increased the use of renewable energy, and worked together to promote the industry toward a low-carbon era.
2. TSRC Kaohsiung plant is managed in comply with ISO50001 energy management system and has obtained ISO50001 certificate, with can be found as linked [ISO50001](#).

Q3: Has TSRC's greenhouse gas emission been verified by an external institution?

1. TSRC Group (including its subsidiaries) conducts greenhouse gas inventory every year and has obtained ISO14064 greenhouse gas inventory certificate, which can found as linked [ISO14064](#).

Q4: Does TSRC have a management system for managing products ?

1. TSRC is committed to the spirit of "Do it right at the first time" and "Practice what you preach" to continuously improve the quality of our products and services to provide customers with satisfactory products and services. Please refer to related certificates are linked to the [ISO9001](#) and [IATF16949](#).
2. TSRC meets the environmental requirements of customers' products and continuously improves the environmental standard of products in comply with HSF (Hazardous Substance Free) related laws and regulations and produces HSF (Hazardous Substance Free) products

with certificates of [QC080000](#).

Q5: Does TSRC have carbon footprint of Product (CFP) ?

1. TSRC has completed product carbon footprint (CFP) based on product lifecycle and nature and has obtained ISO 14067 certificates. For data and certificates, please contact our sales window or email to ESG Sustainability Team (Email:esg.admin@tsrc-global.com).