TCC

2024

Taiwan Cogeneration Corporation

SUSTAINABILITY REPORT

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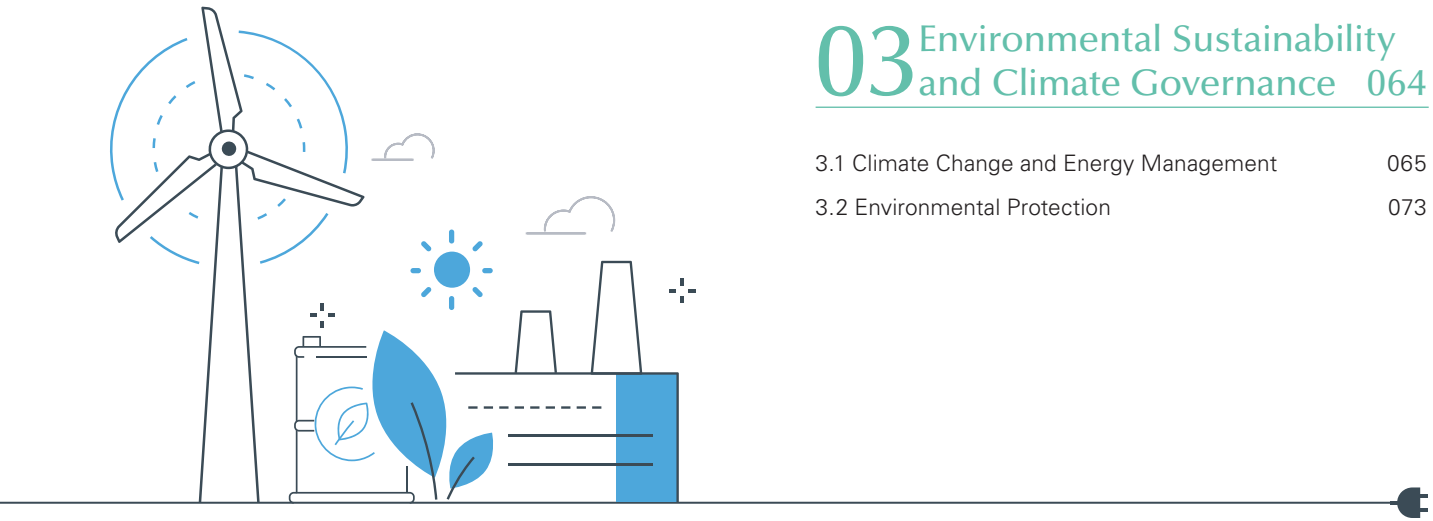

About this Report

GRI 2-1、2-2、2-3、2-4、2-5、2-14

Report Preparation

Taiwan Cogeneration Corporation (below, "TCC" or "the Company") issues a sustainability report annually. To fully demonstrate the quality and transparency of the report, its content structure is based on the GRI Standards issued by the Global Reporting Initiative (GRI). The report also adheres to the Rules Governing the Preparation and Filing of Sustainability Reports by TWSE Listed Companies, and the standards set by the Sustainability Accounting Standards Board (SASB), disclosing information in the aspects of Environment (E), Social (S), and Governance (G).

Sources and Scope of Information

The reporting period of this report is from January 1, 2024, to December 31, 2024, and the report is consistent with the scope and period of the Company's consolidated financial statements. The scope of disclosure is primarily related to the operation of the Company's head office in Taiwan and the Guan Tian Plant. In addition, basic information of subsidiaries covered in the consolidated financial statements is also disclosed. Depending on the completeness and importance of the information, data of subsidiaries including Star Energy Corporation ("Star Energy"), TCC Green Energy Corporation ("TCC Green Energy"), Miaoli Wind Co., Ltd. ("Miaoli Wind"), Hamaguri Co., Ltd. ("Hamaguri"), as well as major invested natural gas power plants including Chang Bin Gas-Fired Power Plant of Star Energy Power Corporation ("Star Energy Power"), Fong Der Gas-Fired Power Plant of Sun Ba Power Corporation ("Sun Ba Power"), Star Buck Gas-Fired Power Plant of Star Buck Power Corporation ("Star Buck Power"), and Kuo Kuang Gas-Fired Power Plant of Kuo Kuang Power Co., Ltd. ("Kuo Kuang Power") is appropriately disclosed. The financial data is disclosed in accordance with the financial statements of the International Financial Reporting Standards (IFRS) and presented in New Taiwan Dollars (NTD), and the corresponding audit report is issued by Deloitte & Touche Taiwan.

Report Management

The information and data in this report are provided by different departments of TCC, the Guan Tian Plant, the three invested natural gas power plants (Chang Bin Power Plant of Star Energy Power, Fong Der Power Plant of Sun Ba Power, Star Buck Power Plant of Star Buck Power), and other distinct subsidiaries, compiled by the Planning & Investment Management Dept. of TCC. After confirmation by the heads of each unit for compliance with the purpose of this report, the report is submitted to senior executives and the Board of Directors for review and approval prior to publication. The Company has established the Sustainability Report Preparation and Verification Procedures along with internal control systems to ensure the quality of the report and compliance with regulatory requirements.

Report Assurance

The Company entrusted Deloitte & Touche Taiwan to carry out limited assurance in accordance with the TWSAE 3000 "Assurance Engagements Other than Audits or Reviews of Historical Financial Information" (with reference to the International Standard on Assurance Engagements 3000 [ISAE3000]) issued by the Accounting Research and Development Foundation, confirming the compliance with the disclosure principles of GRI Standards. The limited assurance report of the independent auditor is detailed in the Appendix of this report.

Issuance Time and Frequency

The Company's sustainability report is issued on an annual basis. It can be downloaded from the Company's official website.

- Previous report issued: June 2024
- Current report issued: June 2025
- Next report to be issued: Expected to be released in June 2026

Contact Information

We value your feedback regarding this report. If you have any suggestions or advice, please feel free to contact us. The contact information is as follows:

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Report download link: https://esg.cogen.com.tw/en/Sustainability-Report

Statement from the Chairman GRI 2-22

The current global political and economic landscape is characterized by instability and rapid changes, while technologies such as artificial intelligence (AI) are advancing at a remarkable pace, reshaping global industrial development, business models, and even human lifestyles. Concurrently, climate change continues to trigger frequent extreme weather events, presenting unprecedented challenges to energy supply and the low-carbon transition. According to the *Global Risk Report 2025* published by the World Economic Forum (WEF), "misinformation and disinformation" and "extreme weather events" are identified as the most pressing risks over the next two years. As a leading force in the energy industry, TCC fully recognizes that enterprises are not only key drivers of economic development but also bear the responsibility of environmental protection, social engagement, and sound corporate governance. We are committed to enhancing corporate value by focusing on our core business. Through careful and strategic consideration of sustainability-related issues, we aim to formulate short-, medium-, and long-term strategies and goals aligned with the United Nations Sustainable Development Goals (SDGs). We will strengthen climate governance and corporate resilience to ensure steady progress in the face of the global Net-Zero transition, and ultimately to realize our vision for sustainable development.

Advancing Green Transformation and Fulfilling the Net-Zero Commitment

To accelerate alignment with Nationally Determined Contributions (NDCs) worldwide and enhance the global competitiveness of domestic industries through more proactive climate action, the government has set a national goal of achieving net-zero emissions in Taiwan by 2050. A comprehensive carbon reduction action plan has been established, outlining three milestone phases. The first phase targets a reduction of 28±2% by 2030 compared to the baseline year of 2005, with the energy sector playing a critical role in achieving this goal. TCC, in alignment with government policies on energy transition, is actively expanding investments and developing renewable energy sources such as solar, wind, and geothermal power. The Company continues to expand its green power retailing capabilities, strengthen its role in gas-fired independent power producers (IPPs), and participate in the Energy Trading Platform. In addition, TCC is evaluating emerging technologies including energy storage, hydrogen energy, and Carbon Capture, Utilization and Storage (CCUS). By ensuring a stable power supply while enhancing energy diversity and autonomy, TCC is committed to driving the low-carbon transition, supporting the achievement of phased carbon reduction targets, and gradually realizing a sustainable Net-Zero future.

Fostering Talent Development and Creating Inclusive Value

At TCC, we uphold the highest standards of human rights and corporate responsibility. Our commitment is guided by international conventions, including the Universal Declaration of Human Rights, which forms the foundation of our human rights policy. TCC prioritizes the well-being of our employees and fosters an inclusive organizational culture that embodies the principles of Diversity, Equity, and Inclusion (DEI). We strive not only to create a work-life balance but also fairness and respect for all individuals. We emphasize talent cultivation and development. A Talent Development Committee has been established to formulate training programs aligned with both the Company's sustainability objectives and employees' career development. In 2024, TCC was honored with the *CommonWealth* Talent Sustainability Award issued by the *CommonWealth* Magazine. Furthermore, to nurture professionals in the power sector, TCC has participated in the Electric Grid Talent Alliance organized by the Industrial Technology Research Institute (ITRI) since 2019. By collaborating with industries, government, academia, and research institutes, we aim to cultivate a new generation of energy professionals, strengthen technical capabilities in the power sector, and foster cross-disciplinary talent for sustainability, advancing the net-zero transition of the energy industry and realizing a vision of shared prosperity and inclusion.

Strengthening Corporate Governance to Ensure Global Competitiveness

To align with international standards and advance corporate governance, the Financial Supervisory Commission (FSC) introduced the "Sustainable Development Action Plans for TWSE- and TPEx-Listed Companies" in 2023. This initiative aims to reinforce corporate sustainability and cultivate a robust ESG ecosystem, thereby enhances global competitiveness. In the face of rapid changes in both internal and external environments, as well as evolving policies, a solid governance structure remains the foundation of long-term corporate resilience. Upholding the principle of ethical management, TCC is committed to advancing corporate governance and enhancing the functions of the Board of Directors. In accordance with the requirements of the regulatory authorities, TCC has incorporated sustainability information management into its internal control system, strengthened ESG information disclosure, and enhanced communication and engagement with stakeholders. Since 2016, TCC has consistently ranked among the top 20% of listed companies in the Corporate Governance Evaluation. In 2024, the Company was honored for the fifth time as one of the top 5% of listed companies in the Corporate Governance Evaluation and ranked among the top 10% of non-financial and non-electronics companies with a market value of NT$10 billion or more. TCC's persistent efforts in ESG advancement have also earned widespread recognition. In 2024, the Company received the "Taiwan Top 100 Sustainability Exemplary Awards" and the "Corporate Sustainability Report Awards - Gold Award" of the Taiwan Corporate Sustainability Awards (TCSA). Additionally, TCC was again awarded the "Excellence in Corporate Social Responsibility" of the *CommonWealth* Magazine and was recognized by the Ministry of Environment with a national-level honor for Outstanding Performance in Green Procurement.

Looking Ahead: Advancing Together Toward a New Era of Sustainability

In 2024, the TCC Group delivered another outstanding performance, with after-tax net profit reaching a historic high for the second consecutive year. More than 600 GWh of renewable energy has been sold, reflecting the success of the Group's active efforts in innovation and transformation in recent years. Looking forward and in response to the global challenge posed by climate change, we will focus our core strategies on: "sustainable development, Net-Zero transition, digital innovation, and talent cultivation". TCC is committed to formulating forward-thinking strategies and goals that evolve with the times. We aim to leverage our deep technical expertise and advantages in the energy sector, continue expanding in renewable energy, cogeneration, and natural gas power generation, and support the development of low- and zero-carbon power systems. Our goal is to provide stable, safe, and affordable energy while strengthening climate governance, enhancing corporate resilience and competitiveness, staying ahead of global trends, and driving progress toward a Net-Zero and sustainable future.

Chairman of TCC

王振勇

2024 Sustainability Performance and Highlights

Environmental

Renewable Energy Retailing
More than **170** GWh of renewable energy sold in 2024

Solar Energy
Wushantou Reservoir's floating solar photovoltaic project generated over **19.1** GWh in 2024

Wind Power
Power generation of Miaoli Wind and Star Wind exceeded **110** GWh in 2024
O&M of **116** wind turbines

Electricity saving rate for the Guan Tian Plant in 2024: **0.73%**
Cleared **30,137** metric tons of scrap tires
Used **3,001** metric tons of SRF
Alternative fuel substitution rate: **29.77%**

The 3 invested IPPs reduced approximately **1.36** million metric tons of CO_2e

Social

Talent Cultivation
Average training hours for managers: **29.75** hours/person
Average training hours for general employees: **67.06** hours/person

127million hours with no occupational accident in the Guan Tian Plant since its establishment

3 Days of volunteer leave per year

Social Participation Activities
Hope Reading Program - volunteering at a rural elementary school
Eat Vegan for the Earth Day, Vegan Day once a month
Co-organized the Taya Marathon; sponsored the Tianzhong Marathon
Participated in the Power School and Talent Development Alliance

Governance

Earnings per share (EPS) reached: **NT$1.85**

Customer Satisfaction of the Guan Tian Plant scored **95.4**

Received the Green Procurement Award
Procurement amount reached: **NT$570** million

Sustainable Supply Chain
Established a Supplier Corporate Social Responsibility (CSR) Code of Conduct and incorporate it into contract terms
Self-assessment questionnaire response rate: **95.2%**

Awards

Ranked top **5%** of listed companies in the 11th Corporate Governance Evaluation

Taiwan Corporate Sustainability Awards (TCSA)
Corporate Sustainability Report Gold Award
Top 100 Sustainability Exemplary Award

***CommonWealth* Excellence in Corporate Social Responsibility Award**
Ranked **8th** in the Medium-sized Enterprise category

***CommonWealth* Talent Sustainability Award**
Medium-sized Enterprise category

Sustainability Column

Protecting Ecosystems and Co-Creating a Biodiverse Future

The process of global economic development often places pressure on the ecological environment, especially under the drive of energy, industrial, and urban development. Ecosystems are facing increasingly severe challenges. Biodiversity not only ensures ecosystems function properly but also forms the foundation for the sustainable development of human society. Striking a balance between economic growth and ecological preservation has become one of the most critical challenges for businesses today. Upholding the principle of environmental sustainability, TCC is committed to minimizing the impact of its business activities on ecosystems. Through measures such as avoidance, impact mitigation, and ecological compensation, we ensure that our development processes align with ecological conservation principles. We also actively engage in environmental monitoring and ecological preservation programs to reduce disturbances to habitats of flora and fauna. Through these efforts, we aim to foster harmonious coexistence between ecology, the economy, and society.

TCC | Star Energy | Star Buck Power and Star Energy Power | Sun Ba Power

Project Location

Aquavoltaic Development Project in the Yongxing Fish Farm Area, Fangyuan Township, Changhua County

Development permit granted for a land area of 39.8 hectares

Region Type

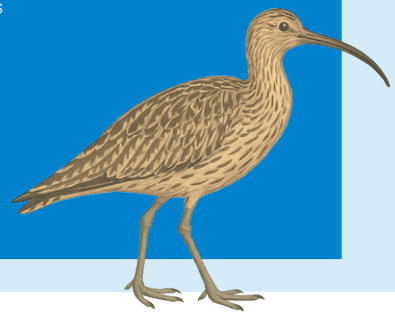
Aquatic Area

National Conservation List

Saunders's Gull
⚠ Nationally Critically Endangered Species

Far Eastern Curlew
⚠ Nationally Endangered Species

Eurasian Curlew
⚠ Nationally Vulnerable Species



Implementation Results

- TCC's subsidiary, Hamaguri, committed to avoiding key activity areas of the Eurasian Curlew within the solar energy project area, preserving roosting habitats for the species.
- Since 2020, ongoing avian ecological surveys have been conducted to ensure a comprehensive understanding of local water bird populations. Local water quality and sediment heavy metal levels are continuously monitored to ensure the project does not adversely affect the ecological habitat and aquaculture environment. Hamaguri has also committed to establishing an ecological conservation demonstration zone to preserve water bird roosting areas.
- In December 2024, a meeting and site inspection were held with different specialized groups and stakeholders, including local aquaculture associations in Changhua, Taiwan Wild Bird Federation, and Taiwan Environmental Protection Union. The discussions reflected a shared concern for ecological conservation. Participants provided valuable feedback on different aspects of the demonstration zone, such as its designated area, key species for conservation, landscape features, fencing layout, and species management. These inputs laid a solid foundation for the future development and operation of the demonstration zone.

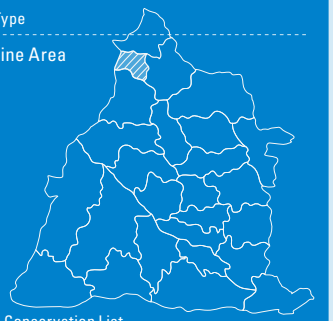
Project Location

Xianxi Waterway, Changhua Coastal Industrial Park, Lunwei District, Changhua County

- Onshore substation project for the Greater Changhua Northwest and Southwest Offshore Wind Power Projects
- Onshore EPC (Engineering-Procurement-Construction) project for Taipower's Phase II Offshore Wind Power Project

Region Type

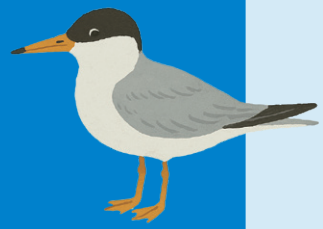
Marine Area



National Conservation List

Little Tern

Class II Protected Bird Species



Description

The Little Tern is a rare and valuable Class II protected bird species. It breeds annually from April to July on the Rouzongjiao Beach.

Implementation Results

- Prior to project development, potential impacts on the surrounding ecological conservation areas were assessed to determine the scope and significance of possible effects. Mitigation strategies were then planned to minimize environmental impacts. An external ecological consultant was commissioned to conduct monthly environmental audits and provide guidance throughout the project. During construction, low-vibration machinery was used, along with equipment meeting Phase 3 or higher emission standards or equipped with particulate filters. Precast construction methods were adopted for major structures, and construction vehicle routes were strictly regulated to prevent entry into unauthorized paths. These measures were implemented to reduce the environmental impact from transportation, material usage, noise, and vibration.
- Rouzongjiao Beach in Xianxi Township, Changhua, is an open sandy-gravel area frequently accessed by construction and recreational vehicles. There have also been instances of individuals collecting bird eggs. In response, the Wild Bird Society of Changhua collaborated with the Changhua County Government and the Changhua Coastal Industrial Park Service Center to create friendly barriers using hemp ropes tied with green ribbons. This initiative aims to raise public awareness about ecological conservation and to encourage collective efforts to protect the Little Tern.

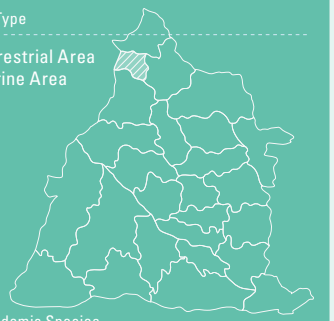
Project Location

Changhua Coastal Industrial Park, Xianxi Township, Changhua County

- The project site is located on newly reclaimed land created through sand dredging and land reclamation. The terrain is flat, with an elevation of approximately 0-10 m above sea level. The total site area is about 5 hectares.
- The ecological survey covers the project site and surrounding areas within a radius of approximately 1 km.

Region Type

Terrestrial Area
Marine Area



Local Endemic Species

Mud shrimp

Description

Upogebia edulis, commonly known as the mud shrimp, is a species of arthropod belonging to the infraorder Thalassinidea, family Upogebiidae, and genus Upogebia. It is native to Taiwan and has physical characteristics that are intermediate between those of shrimp and crabs.

Implementation Results

Star Buck Power and Star Energy Power Create a Diverse Habitat and Ecological Green Network

- Organized field trips for local schools to visit the power plants. In addition to providing education about electricity generation, the visits also introduced elementary students to basic concepts of energy conservation and carbon reduction.
- In accordance with environmental impact assessment (EIA) commitments, the power plants carried out landscaping and greening around the site and buildings by planting arbor species such as Sea Hibiscus, Pongam Tree, and Buddhist Pine. These were integrated into a green corridor within the plant, creating a friendly environment improving the microclimate. The upper canopy formed by trees and the lower layer of ground cover serve as a connecting green corridor, linking to the windbreak forest on the eastern side of the plant adjacent to the industrial zone. Vegetation within the corridor is maintained and preserved to provide habitats for wildlife.
- Participated in coastal clean-up and marine life restoration activities, such as fish, shrimp, and shellfish rehabilitation, organized by the Changhua Coastal Industrial Park and local environmental groups. These efforts aim to reduce habitat destruction and restore native ecosystems.
- Invited nearby township community development associations and civic organizations to visit the power plants, fostering public understanding of their contributions to environmental protection and commitment to sustainability.
- Conducted quarterly environmental monitoring.

TCC | Star Energy | Star Buck Power and Star Energy Power | Sun Ba Power

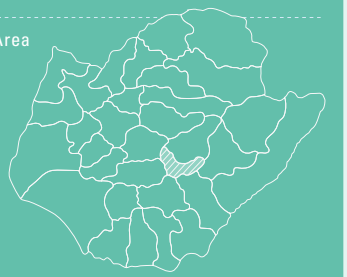
Project Location

Fongde Village, Shanshang District, Tainan City

Sun Ba Power Phase II Gas-Fired Combined Cycle Power Generation Project

Region Type

Terrestrial Area



National Conservation List – Terrestrial Plants

Lanyu Buddhist Pine

⚠ Listed as a Nationally Critical Species in the *Red List of Vascular Plants of Taiwan*

National Conservation List – Terrestrial Animals

Maroon Oriole, Collared Scops Owl, Ring-necked Pheasant, Greater Painted-snipe, Crested Serpent Eagle, and Crested Goshawk

Class II – Rare and Valuable Protected Species

Black-headed Munia

Class III – Other Protected Species

Collared Scops Owl

Implementation Results

- The power plant project incorporated several ecological protection measures, including the designation of a conservation area on the southern side and the installation of artificial nest boxes as a habitat compensation measure for the collared scops owl. To ensure public safety and minimize impact on the conservation area south of the gas-fired power plant, lighting facilities were reduced and fitted with directional (convergent) lighting fixtures. In the plant's greenbelt, only native tree species were planted, complemented by shrubs and turf to create multi-layered vegetation. These efforts were assessed to have minimal impact on terrestrial wildlife.
- Conducted quarterly environmental monitoring.

TCC Value Chain GRI 2-6

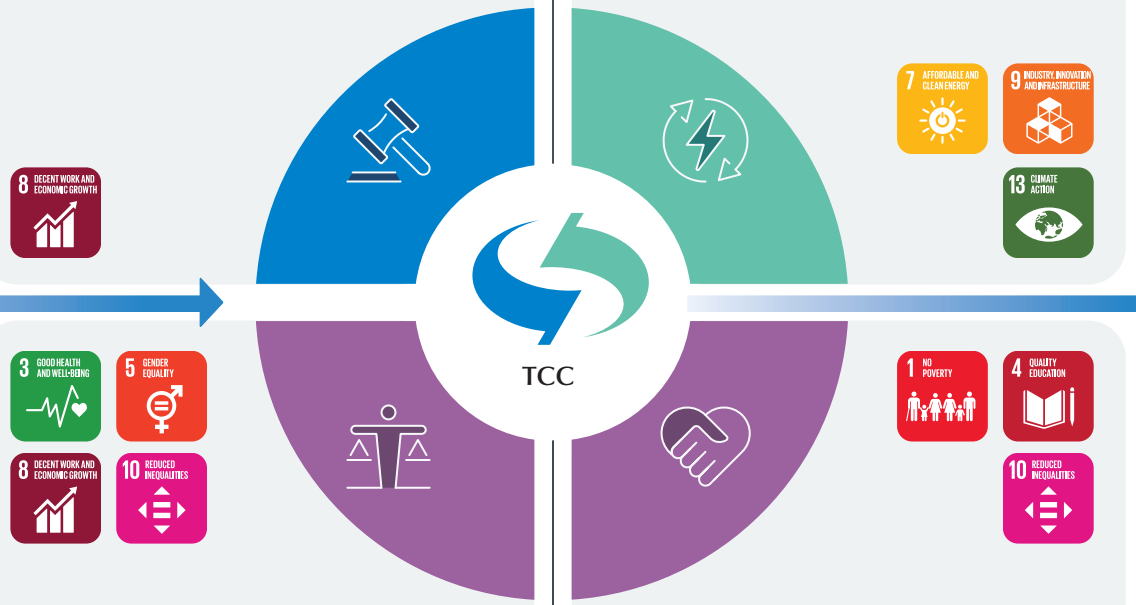
Supplier Management (S)
- Green procurement
- Corporate Social Responsibility (CSR) Commitment
- Supplier CSR Code of Conduct
- Supplier evaluation
- Sustainability performance self-assessment
- On-site audits

Suppliers
Mechanical equipment and raw materials (coal, scrap tires, natural gas, diesel), etc.

Ethical Governance (G)
- Implementation of integrity management and internal control systems
- Enhancement of economic performance

Stable and Efficient Energy Supply (E)
- Replacing coal with alternative fuels
- Recycling and reuse
- Energy saving and carbon reduction

Service Efficiency Enhancement (S)
- Dedicated, diligent, and professional teams providing enthusiastic service
- Improving the quality of products and engineering services
- Enhancing customer satisfaction



Customers
Steam and electricity

- Healthy and balanced work environment
- Fair treatment
- Talent cultivation program
- Prevention of workplace misconduct

Human Rights Protection and Inclusion (S)

- Educational investment in the new generation
- Giving back to local communities
- Eliminating inequality of opportunity

Social Care (S)

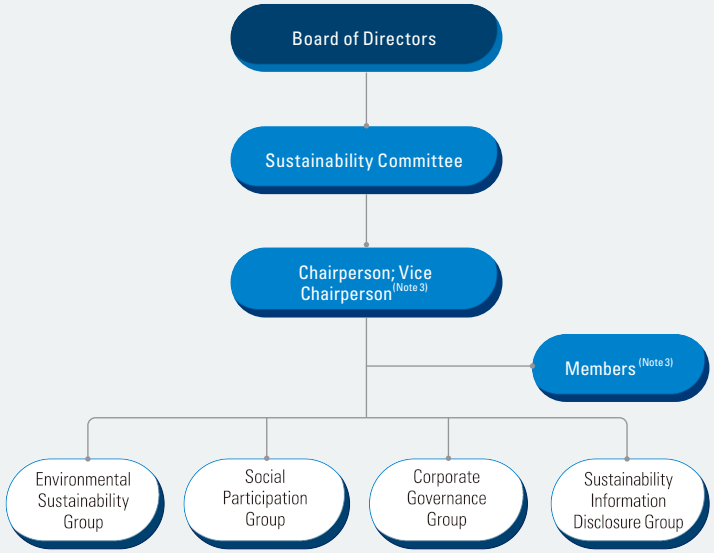
Sustainable Governance and Development Strategy

Sustainability Committee GRI 2-9、2-12、2-13、2-16

To advance the Company's vision for sustainable development, the Board of Directors serves as the highest governance body for promoting sustainability at TCC, supervising all sustainability initiatives. TCC's Sustainable Development Principles, approved by the Board, serve as the highest-level guideline principles for sustainability promotion. To ensure robust sustainability management, TCC has established a comprehensive governance framework, including the formation of the Sustainability Committee (Note 1), which is responsible for formulating sustainability-related policies, as well as overseeing annual sustainability plans, implementation, review, and improvement. The Committee is chaired by the Chairman of the Board. The President of TCC serves as Vice Chairman, and the Vice President as a Member. Under the Committee, four working groups have been established: Environmental Sustainability Group, Social Participation Group, Corporate Governance Group, and Sustainability Information Disclosure Group. These groups are responsible for addressing specific sustainability issues within their respective domains. The Planning & Investment Management Dept. acts as the concurrently dedicated unit for sustainability development, supporting the Committee's work, and assisting in the overall coordination of sustainability efforts. Each year, ESG-related indicators are submitted to the Committee for approval and serve as the basis of Company's overall goals and annual KPIs for each department.

- **Frequency:** The Committee convenes at least once a year and regularly reports to the Board of Directors on the status of implementation and any critical concerns. (Note 2)
- **Responsibilities:**
  1. Formulate, promote, and strengthen the Company's sustainability policies, annual plans, and strategies
  2. Review, monitor, and revise the implementation and performance of sustainability initiatives
  3. Oversee sustainability information disclosure and review the sustainability report
  4. Supervise the implementation of tasks related to TCC's Sustainable Development Principles or other sustainability-related initiatives resolved by the Board of Directors (including identification of material topics, formulation of management approaches, strategies, and targets)

Organizational Structure



Promotion of ESG-related Work in 2024

Note 1: TCC established the Corporate Social Responsibility Promotion Committee in 2017, which was renamed the Sustainability Committee in 2024. The Sustainability Information Disclosure Group was also added at that time.

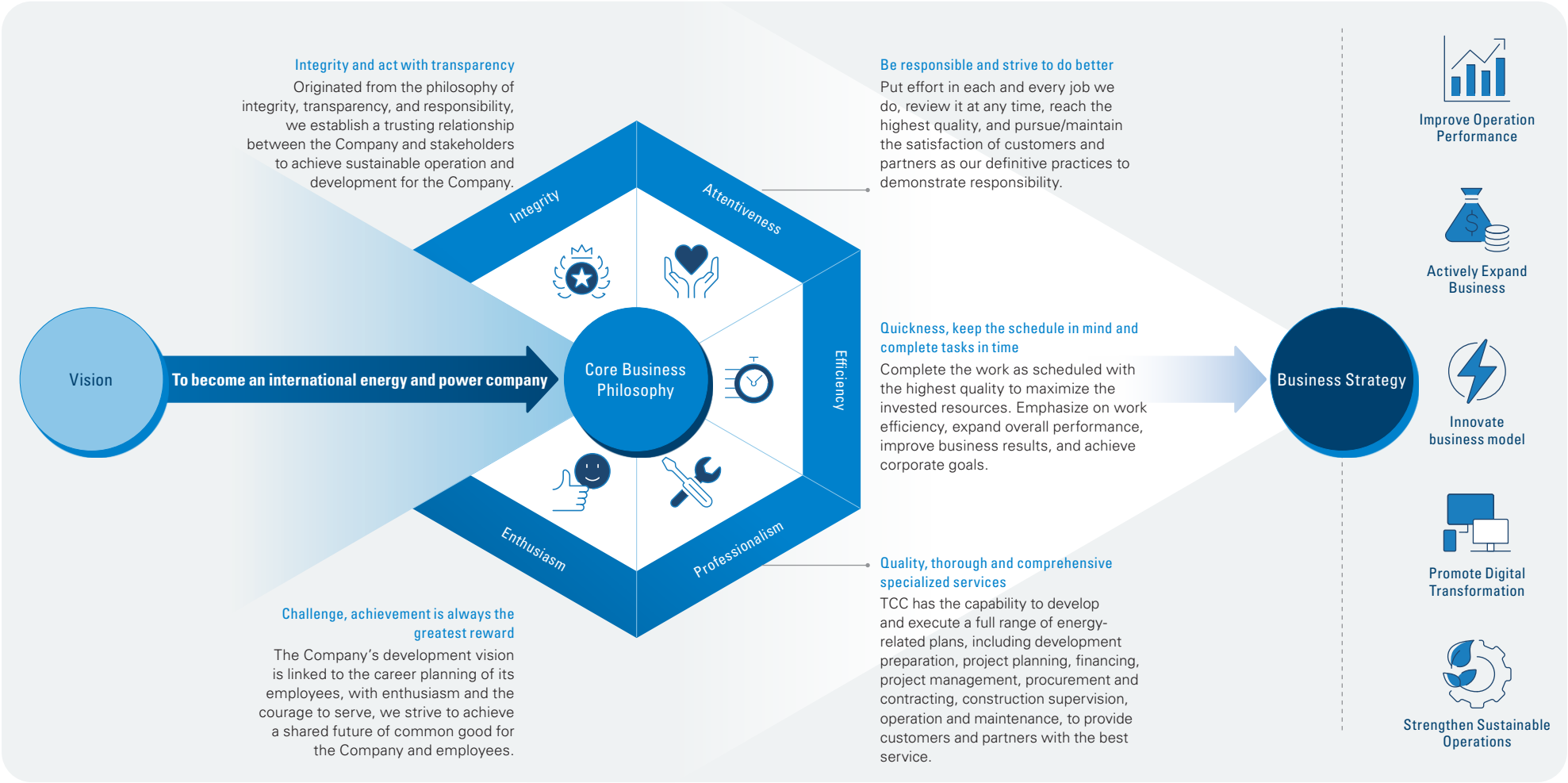
Note 2: Critical concerns refer to material issues that may impact the Company's operations or safety, as identified through grievance mechanisms, stakeholder communication channels, or defined under the Company's risk management system. No critical concerns occurred in 2024.

Note 3: Chairperson: Chairman of TCC; Vice Chairperson: President of TCC; Members: Vice President of TCC.

Vision and Strategy for Sustainable Development

In response to domestic and international sustainability trends, changes in internal and external environments, and evolving policies, TCC has developed sustainability strategies across the environmental, social, and governance dimensions. The Company will continue to respond to the United Nations Sustainable Development Goals with concrete actions that fulfill corporate sustainable operations.

TCC, established for over 30 years, has become a company capable of providing a full range of services, including investment development, engineering project contracting, O&M (operation and maintenance), renewable energy retailing, ancillary services, and energy storage.



In response to climate change and the rapidly changing business environment, TCC has formulated short-, medium-, and long-term material issues, overall company strategies, and action plans based on its vision and business philosophy, while considering internal and external factors, major government policies, and company resources such as labor and finances. TCC has developed a five-year future business strategy, which is reviewed and updated annually to promptly address changes in internal and external environments. This allows TCC to adjust its overall strategy and business direction in a timely manner, ensuring the implementation of sustainable business practices and progress towards the sustainable development goals.

	E	S	G
Direction of Sustainability Strategy	• Actively expand business • Innovate business model • Strengthen sustainable management	• Promote digital transformation • Strengthen sustainable management	• Improve operational performance • Actively expand business • Innovate business model • Promote digital transformation • Strengthen sustainable management
	• Expand the development of green energy business • Strengthen environmental management and pollution prevention • Implement environmental sustainability • Establish a green circular economy	• Establish a complete talent management and training mechanism • Create a happy and healthy workplace • Implement social participation and contribution	• Improve corporate governance and competency of the Board • Improve the transparency and timeliness of information disclosure • Strengthen risk response capabilities • Build a sustainable supply chain • Improve service quality • Expand existing businesses and develop innovative business models
Mid- and Long-Term Goals	• Actively develop renewable energy projects and enhance competitiveness in engineering contracting and O&M capabilities • Strengthen renewable energy retailing, ancillary services and energy storage businesses • Continue to promote the establishment of environmental and energy-related management systems, update power plant units and pollution prevention equipment, and strengthen the energy efficiency of units • Establish targets for renewable energy usage • Fulfill the idea of regional resource integration and circular economy	• Improve the human resources recruitment system, talent rotation system and internal mentor system; strengthen the internal rotation mechanism • Strengthen employee performance evaluation and management structure and link with the strategy, core values and vision of the Company • Maintain zero occupational injury, strengthen employee health management, and create a good working environment • Improve the supplier/contractor sustainability commitment • Integrate the focus of social participation activities with the Company's core businesses and promote local inclusion	• Improve operational performance and strengthen investment management • Improve corporate governance rules and regulations • Continuously strengthen the operations of the Sustainability Committee, and enhance the completeness, quality, and timeliness of information disclosure • Enhance diversified channels of interaction and communication with stakeholders • Strengthen information security management and optimize digital management systems • Strengthen corporate risk culture and improve internal control systems

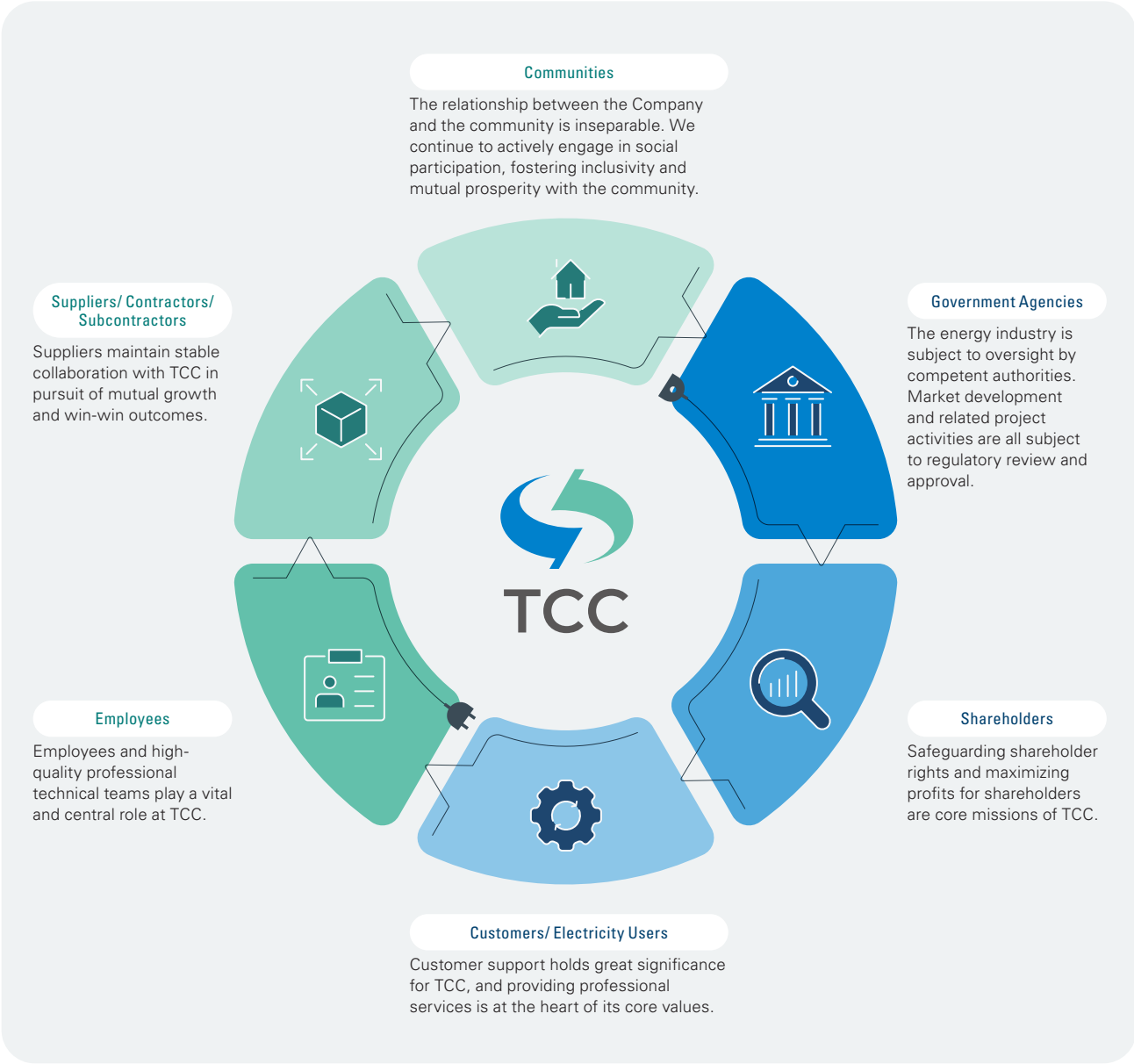
Materiality Analysis and Stakeholder Engagement

Stakeholder Engagement GRI 2-12 / 2-29

TCC places great importance on stakeholder communication. To ensure that the material topics of concern to stakeholders are incorporated into the Company's sustainability policies, and to establish open communication channels and a transparent response mechanism, TCC follows the five principles of the AA1000 Stakeholder Engagement Standard (SES) 2015: Responsibility, Influence, Tension, Diverse Perspective, and Dependency. In addition, TCC draws on best practices from both domestic and international industry peers to identify stakeholders relevant to the Company's operation and sustainability efforts.

Stakeholder Identification Results

Based on the above procedures, six key stakeholder groups have been identified: government agencies, shareholders, customers/electricity users, employees, suppliers/contractors/subcontractors, and communities. To gain deeper insight into stakeholders' perspectives on various sustainability issues, TCC developed and distributed questionnaires to both internal and external stakeholder groups. The results were then integrated with the materiality analysis. Dedicated communication channels have been established for the key issues of concern to each stakeholder group, and appropriate measures are implemented to address them. These efforts help enhance the quality of information disclosure and serve as a foundation for advancing sustainable development.



Stakeholder Communication Overview

Regular (weekly/monthly/quarterly/annually) As needed

Stakeholder	Government Agencies	Shareholders	Customers/ Electricity Users
Communication Methods and Frequency	• Seminars, forums, public hearings, training courses, and informal mutual visits concerning various policies and regulations • Attend symposiums, seminars, evaluation and audit activities organized by the competent authority • Official documents and letters/ emails	• Investor conferences, direct communication between senior managers and investors • Issuance of annual reports, financial reports, and sustainability reports • Designated section on the Company's website for investors • Shareholders' meeting	• Customer satisfaction survey • Visits and discussions through meetings • Phone calls and letters/emails
Concerned Topics	• Legal compliance • Ethical management • Supply stability and reliability • Economic performance • Occupational safety and health	• Economic performance • Legal compliance • Supply stability and reliability • Renewable energy • Evaluation and response to electricity policies	• Renewable energy • Greenhouse gas management • Economic performance • Information security • Supply stability and reliability
Engagement Results	By actively participating in public hearings and symposiums organized by the government, TCC discusses with the competent authorities on issues related to renewable energy and the purchase rate of surplus electricity from cogeneration.	Explain the current business situation to shareholders through various means. In 2024, 4 investor conferences were held to disclose financial and business status. We answered shareholders' questions on improving TCC's business operations and corporate governance. There is a designated section on the Company's website for investors, which contains contact information, serving as a communication channel for investors to make inquiries and provide feedback in real-time.	Meet customer needs and improve customer service through online or in-person communication, customer satisfaction surveys and visits, etc. In 2024, the customer satisfaction survey from 8 customers reached a score of 95.4.
Corresponding Sections	1.1.2 Economic Performance 1.2 Corporate Governance and Ethical Management 2.1 New Directions for the Energy Transition 2.2.4 Integrating the Renewable Energy Value Chain 2.3 High Quality Customer Service 4.3 Healthy Workplace	1.1.2 Economic Performance 1.2 Corporate Governance and Ethical Management 2.1 New Directions for the Energy Transition 2.2 A Reliable Green Electricity Expert 2.3 High Quality Customer Service	1.1.2 Economic Performance 1.2 Corporate Governance and Ethical Management 1.3.2 Strengthening Information Security 2.1 New Directions for the Energy Transition 2.2 A Reliable Green Electricity Expert 2.3 High Quality Customer Service 3.1.2 Energy Saving and Carbon Reduction
Communication Channels	Contact number: +886-2-87982000 ext.546 Email: business@cogen.com.tw	Contact number: +886-2-87982000 ext.546 Email: business@cogen.com.tw	Contact number: +886-2-87982000 ext.546 Email: business@cogen.com.tw

Regular (weekly/monthly/quarterly/annually) As needed

Stakeholder	Employees	Suppliers/Contractors/ Subcontractors	Communities
Communication Methods and Frequency	• Education and training • Employee grievance procedure • Various labor-management meetings • Phone calls and letters/emails • Internal announcement of the Company • TCC Suggestion Box	• Supplier audits • Supplier discussion meetings • Phone calls and letters/emails • Ethical management related education and training	• Phone calls and letters/emails • Visits and discussions through meetings • Participation in social engagement activities
Concerned Topics	• Legal compliance • Economic performance • Risk management • Information security • Corporate governance	• Information security • Supply stability and reliability • Economic performance • Sustainable supply chain • Corporate governance	• Sustainable supply chain • Customer relationship management • Ethical management • Corporate governance • Legal compliance
Engagement Results	There is adequate communication and feedback between TCC and its employees, as labor-management meetings are held on a quarterly basis. In 2024, no employee complaints (including human rights issues) were reported through formal grievance procedures.	In 2024, the signing rate of the CSR Commitment for suppliers reached 95.2%, and the signing rate of the CSR Commitment Self-Assessment Questionnaire reached 97.8%. In addition, on-site audits were conducted to improve suppliers' implementation and management of sustainability and ESG.	TCC continues to invest in community engagement activities, including community investment and charitable donations. Project teams maintain ongoing communication with local communities and organizations and actively participate in community development events (such as temple festivals, year-end banquets, and team-building activities). In 2024, TCC participated in a total of 38 events across Changhua, Miaoli, and Tainan.
Corresponding Sections	1.1.2 Economic Performance 1.2 Corporate Governance and Ethical Management 1.3 Risk Management	1.1.2 Economic Performance 1.2 Corporate Governance and Ethical Management 1.3.2 Strengthening Information Security 2.3 High Quality Customer Service 2.4 A Sustainable Supply Chain	1.2 Corporate Governance and Ethical Management 2.4 A Sustainable Supply Chain 5.2 Social Care and Participation 5.3 Giving Back to Local Communities
Communication Channels	Contact number: +886-2-87982000 ext.523 Guan Tian Plant (Occupational Safety and Health): e163@cogen.com.tw Workplace Violence Consultation and Reporting Hotline: +886-2-87982000 ext. 515 Email: hr@cogen.com.tw	Contact number: +886-2-87982000 ext.546 Email: business@cogen.com.tw Reporting hotline: +886-2-87982000 ext. 626 Reporting email: whistle@cogen.com.tw	Contact number: +886-2-87982000 ext.546 Email: csr@cogen.com.tw

In addition to existing communication mechanisms with stakeholders, TCC has established diverse communication channels through its official website and social media platforms. Internally, the Company uses its network to promptly announce regulations and updates, ensuring transparency and timely responses to stakeholder concerns. Furthermore, to encourage employees to actively share suggestions and foster a proactive, harmonious, inclusive, and innovative organizational culture, TCC launched the TCC Suggestion Box in 2024. A designated staff member regularly reviews, organizes, and responds to the submissions to ensure effective communication between employees and the Company while protecting the rights and interests of both parties.

Official Website	ESG Sustainability Section
Facebook	YouTube

Double Materiality Analysis GRI 3-1、3-2

TCC defines and assesses its sustainability issues by following the GRI Universal Standards GRI 3: Material Topics 2021 and integrating the Double Materiality principle from the European Commission's Guidelines on Non-financial Reporting: Supplement on Reporting Climate-related Information. To this end, TCC engaged both internal senior management and external stakeholders to evaluate the actual and potential positive and negative impacts of various sustainability issues. Employing "impact severity" as the primary assessment criterion, TCC identified sustainability issues with significant impacts as material topics, which are subsequently disclosed in the sustainability report, along with their corresponding management systems and performance outcomes. In addition, for industry-specific areas of concern, TCC further conducted assessments of potential financial impacts.

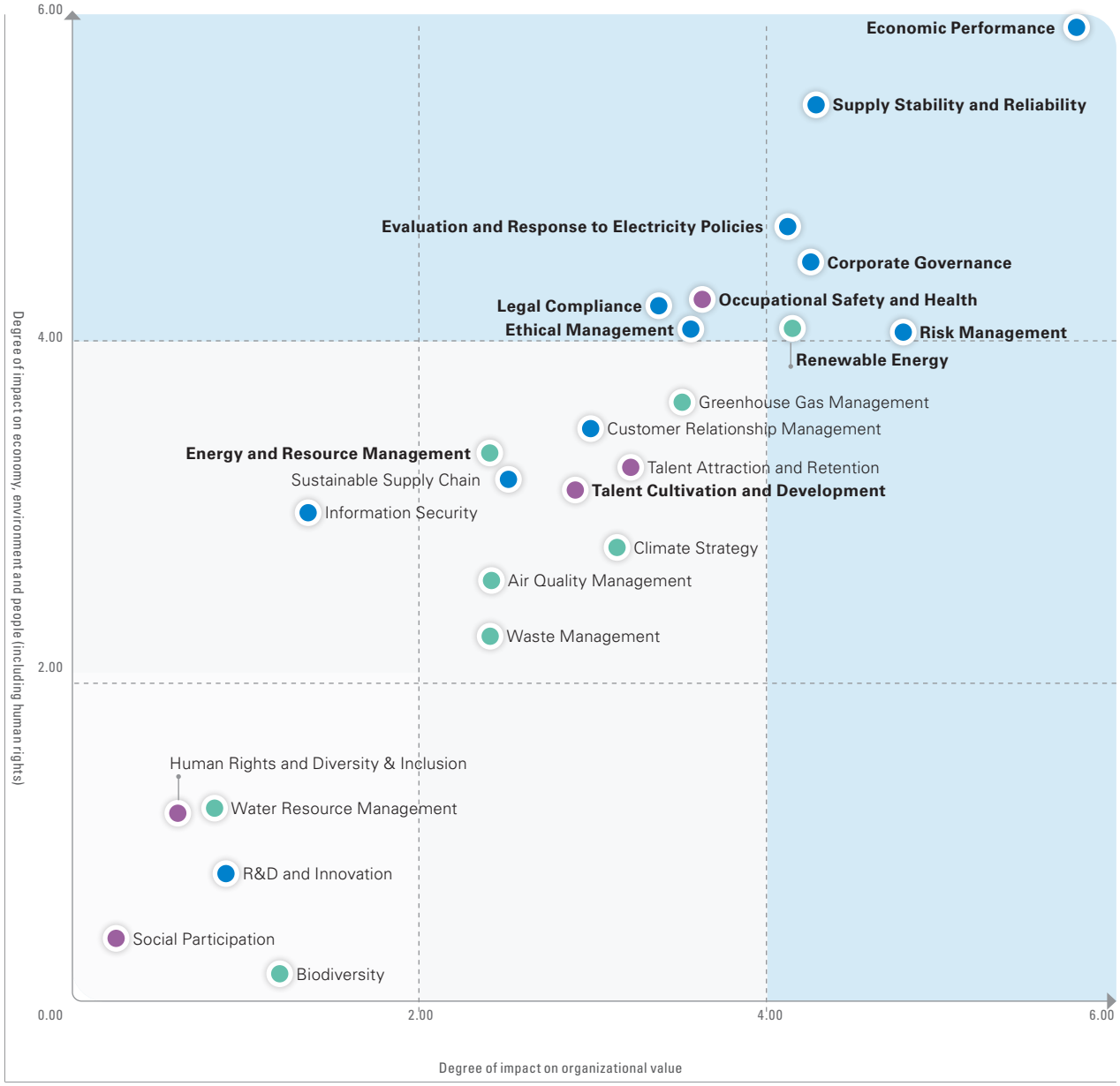
Double Materiality Analysis Process

Phase	① Understanding the Organizational Context	② Identifying Actual and Potential Impacts	③ Assessing the Significance of Impacts	④ Prioritizing and Reporting the Issues with the Most Significant Impacts
Outcome	24 sustainability issues (11 economic and governance, 8 environmental, and 5 people and human rights issues)	Internal impact assessment survey (15 responses) Stakeholder concern survey (194 responses)		11 material topics
Description	• Based on the GRI Standards and the GRI Sector Standard for the Electric Utilities sector, and by referencing international sustainability trends and peer company concerns, the Sustainability Committee consolidated a list of 24 sustainability issues through discussion and feedback.	• Managers of the Company evaluated the impact of each sustainability issue on business value and corporate sustainability through an impact assessment survey. • A stakeholder concern survey was conducted for both internal and external stakeholders to assess the possible impacts of each sustainability issue.	• Managers of the Company quantified the degree of impact for each sustainability issue based on its effect on business value and corporate sustainability. • Both internal and external stakeholders analyzed the relevance and impact of the sustainability issues.	• Questionnaire results from the survey were analyzed to consolidate the impact level of each sustainability issue on business value and corporate sustainability, and a double materiality matrix was created. • Through a comprehensive assessment of impacts on business value and economic, environmental, and people (including human rights) aspects, 11 material topics were identified in 2024, with corresponding impact descriptions provided. • Ongoing management and monitoring of material topics are conducted to ensure stakeholder concerns are addressed effectively.

The 11 material topics identified in 2024 serve as the foundation for information disclosure in this year's sustainability report, and the results of the materiality analysis have been submitted to the Board of Directors. TCC continues to establish management approaches for each material topic, regularly monitoring and reviewing implementation outcomes and effectiveness. The defined management indicators and their corresponding results are disclosed in the relevant sections of the report for the reference of internal and external stakeholders. These efforts also form a cornerstone of the Company's sustainable development strategy.

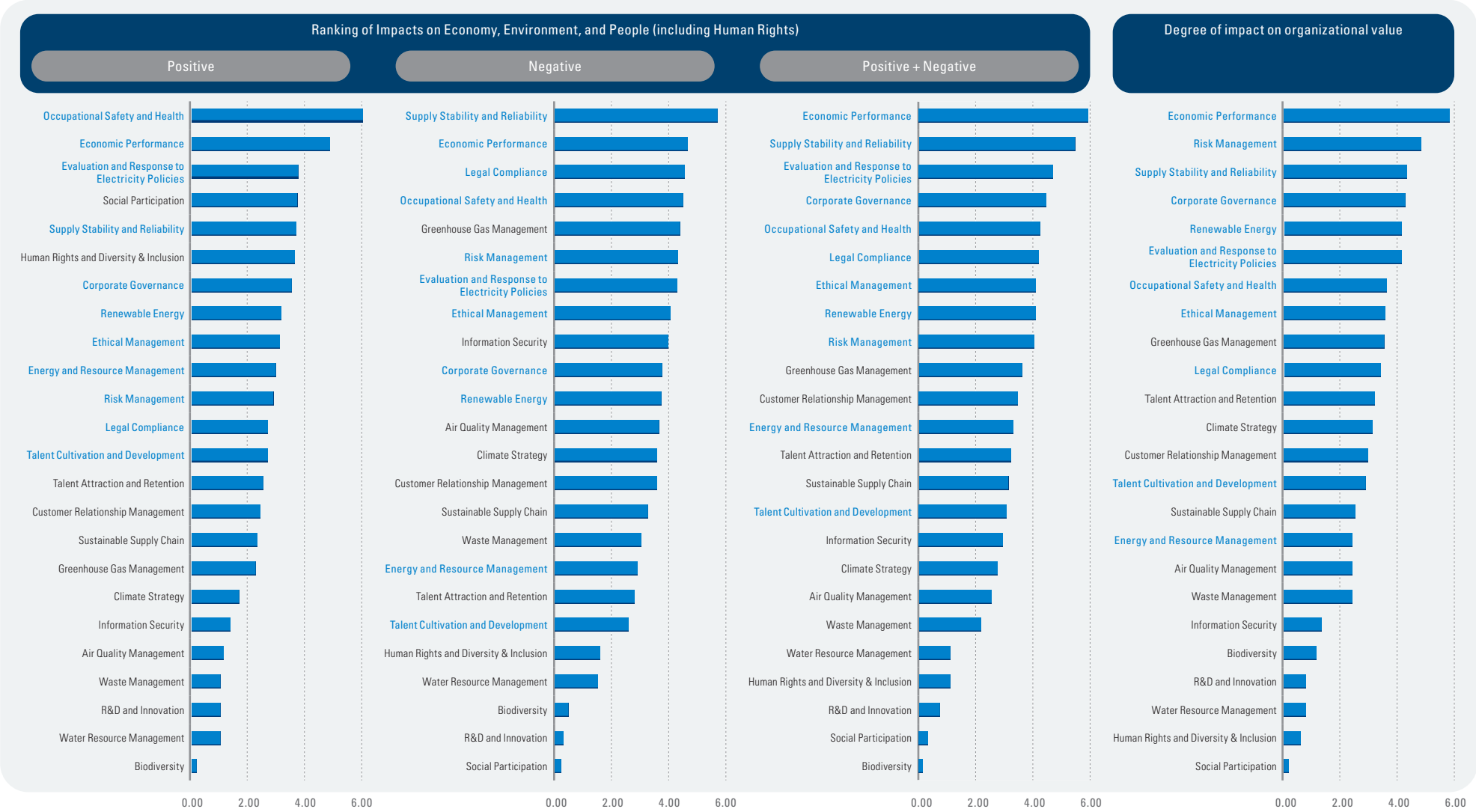
Economic and Governance Aspect	Economic Performance
	Supply Stability and Reliability
	Corporate Governance
	Risk Management
	Evaluation and Response to Electricity Policies
	Ethical Management
	Legal Compliance
Environmental Aspect	Renewable Energy
	Energy and Resource Management*
People and Human Rights Aspect	Occupational Safety and Health
	Talent Cultivation and Development*

Note: Following a comprehensive assessment by the Sustainability Committee on the relevance of sustainability issues to TCC's operations, "Energy and Resource Management" and "Talent Cultivation and Development" were designated as material topics for this reporting year.



On the other hand, when assessing the positive and negative impacts of sustainability issues, TCC not only evaluates their effects on ESG dimensions but also considers their impact on key business indicators such as operating revenue, operating costs, access to funding/capital, corporate image and reputation, and legal liabilities. A comprehensive assessment is conducted to determine how the management of each sustainability topic may positively or negatively influence TCC's operational value and ESG performance. This serves as a key basis for sustainability issue management.

Issues highlighted in **blue** represent the material topics for this reporting year.



Material Topics and Boundaries GRI 2-25

Material topic boundaries describe the scope of potential impacts along the value chain for each relevant issue, as aligned with the corresponding GRI topic standards. TCC identifies these boundaries primarily through internal and external stakeholder impact assessment survey. The Sustainability Committee then reviews and confirms the results, analyzing the content and key areas of impact associated with each material topic.

Material Topic	Corresponding GRI Topic Standard	Impacts to Value Chain			Topic Description	Major Impact	TCC Response
		Upstream Suppliers/ Contractors/ Subcontractors	The Organization Itself TCC	Downstream Customers			
Economic Performance	GRI 201: Economic Performance 2016		✓		The impact of TCC's operating performance such as investment profit/ loss, financial information, operating costs, market development, and the electricity purchasing/retailing prices on the operation of the Company.	The economic performance directly affects the operational strategies of TCC and its invested power plants, consequently affecting the rights and interests of shareholders and employees. Stable operational performance can create more employment opportunities, and a robust financial position enables TCC to invest more significantly in renewable energy development and energy transition, supporting the nation's net-zero targets and green energy expansion.	1.1About TCC
Supply Stability and Reliability	Customized Topic		✓	✓	TCC implements improvement measures and control mechanisms to ensure service quality, power supply stability, optimized power generation efficiency, and safety of construction/power supply.	The stability and reliability of energy supply affect the operational performance of TCC and its invested power plants, and significantly influence customer energy consumption. Consequently, this also impacts the nation's energy structure and associated policies.	2.3 High Quality Customer Service
Corporate Governance	General Disclosures		✓		TCC's medium- and long-term sustainable development strategy, innovative business model, information transparency, governance structure, economic performance, environmental and human rights practices, as well as specific measures and actions for implementing corporate sustainable development.	Corporate governance and sustainability strategies impact the medium- and long-term operation management of TCC Group and the invested power plants, affecting the rights and interests of shareholders and employees. For customers and suppliers, there are indirect impacts through business relationships, such as increasing the sustainability requirements of suppliers and reducing the energy carbon intensity of customers. In addition, they also affect the implementation of regulations and governmental policies indirectly.	1.2 Corporate Governance and Ethical Management
Risk Management	General Disclosures		✓		TCC's capability to identify and manage operational risks, utilizing comprehensive mechanisms for business development valuation and control, alongside those for risk identification, prevention, control, and crisis management.	The effectiveness of risk control and management directly affects the operation of TCC and its invested power plants, as well as shareholder rights and interests. Moreover, it exerts a degree of indirect influence on customer energy supply and government energy policies.	1.3 Risk Management
Evaluation and Response to Electricity Policies	Customized Topic		✓		TCC implements improvement measures and control mechanisms to ensure service quality, power supply stability, optimized power generation efficiency, and the safety of both construction and power supply.	The stability and reliability of energy supply directly affects the operational performance of TCC and its invested power plants, and significantly influences customer energy consumption. Consequently, this impacts the nation's energy structure and associated policies.	2.1 New Directions for the Energy Transition

Material Topic	Corresponding GRI Topic Standard	Impacts to Value Chain: Upstream (Suppliers/ Contractors/ Subcontractors)	Impacts to Value Chain: The Organization Itself (TCC)	Impacts to Value Chain: Downstream (Customers)	Topic Description	Major Impact	TCC Response
Renewable Energy	Customized Topic		✓		Responding to international energy trends and national energy policies, TCC has intensified its efforts in renewable energy-related investment, engineering, and technical services.	While the development of renewable energy impacts the environment and policy objective, the Company's evolving business focus also affects shareholders' rights and interests. By supplying renewable energy, TCC can assist customers in lowering their indirect emissions, aligning with the national net-zero goal. However, such projects risk disturbing existing ecosystems, biodiversity, or cultural heritage in their development areas.	2.2 A Reliable Green Electricity Expert
Occupational Safety and Health	GRI 403: Occupational Health and Safety 2018		✓		TCC's measures and policies on occupational safety and health management include workplace safety protection, construction and operation safety, occupational accident risk management, employee health management plans and health inspections.	The health and safety of employees affects the ability of TCC and its invested power plants to sustain normal operations. Through the implementation of robust systems and measures, TCC can mitigate the safety and health risk of hazardous work for employees and contractors. This safeguards labor rights, ensures a safe and sanitary work environment, and avoids additional financial expenditures such as compensation for workplace accidents and governmental penalties.	4.3 Healthy Workplace
Ethical Management	GRI 205: Anti-corruption 2016 GRI 206: Anti-competitive Behavior 2016 GRI 418: Customer Privacy 2016		✓		The practices and awareness campaigns conducted by TCC for legal compliance, ethical management, prevention of insider trading, as well as the involvement in associations, policy making, and domestic/ international initiatives.	Ethical management and legal compliance are core principles of corporate governance. Establishing a robust ethical management mechanism can enhance TCC's operational resilience and reduce the risk of regulatory penalties, thereby protecting the interests of internal and external stakeholders. Failure to comply with legal norms and the principles of business integrity will lead to lawsuits or government penalties that affect the Company's reputation or the suspension of its operations, impacting both internal and external stakeholders.	1.2 Corporate Governance and Ethical Management
Legal Compliance	GRI 416: Customer Health and Safety 2016 GRI 417: Marketing and Labeling 2016		✓				1.2 Corporate Governance and Ethical Management
Talent Cultivation and Development	GRI 404: Training and Education 2016		✓		TCC's management mechanisms such as talent recruitment, cultivation and performance evaluation assist employees in their career development, as well as the passing on of the organization's experience.	Design training courses for employees and supervisors improves the work efficiency and core technology management of individuals and departments within the Company, thereby affecting the overall operational performance of the Company.	4.1 Talent Management and Development
Energy and Resource Management	GRI 302: Energy 2016		✓		In order to mitigate the impact of climate change, TCC continues to improve department efficiency, renew environmental protection equipment, recycle energy/ resources, and implement energy-saving and carbon-reduction plans as well as a circular economy production model.	Carbon emissions and the use of energy/ resources are closely related to climate change. Moreover, government policies and regulations are influenced by global trends. TCC reduces coal consumption through the use of scrap tire chips and solid recovered fuel (SRF), continually improving unit operational efficiency to help customers reduce their greenhouse gas emissions.	3.1 Climate Change and Energy Management

Material Topic Goals Achievement Status GRI 3-3

Material Topics	2024 Goals/Important Milestones	Achievement Status	Corresponding Sections
Evaluation and Response to Electricity Policies	Formulate future business strategy for the next 5 years, and review implementation strategy on a rolling basis in accordance with the electricity policy	✓	2.1 New Directions for the Energy Transition
	Complete the energy policy tracking and analysis report	✓	
Corporate Governance and Sustainability Strategy	Strengthen the functions of the Board and functional committees	✓	1.2 Corporate Governance and Ethical Management
	Improve corporate policies and regulations based on Corporate Governance 3.0 and evaluation indicators	✓	
	Rank in the top 5% of the corporate governance evaluation	✓	
Economic Performance	Ensure an 85% win rate for existing ancillary service resources and review pricing strategies to enhance revenue	✓	2.1 New Directions for the Energy Transition 2.2.4 Integrating the Renewable Energy Value Chain
	Expand third-party ancillary service trading business and introduce external resources and energy storage business models	✓	
	Secure EPC and O&M projects for large-scale wind, solar photovoltaic, power booster stations, and energy storage systems	✓	
Risk Management/ Control	Complete the risk management plan, incorporating climate change-related risks and opportunities into the analysis	✓	1.3 Risk Management
	Implement internal control systems to manage corporate risks more effectively	✓	
Supply Stability and Reliability	Achieve ≥97.26% operating reliability at the Guan Tian Plant	✓	2.3 High Quality Customer Service
	Secure Taipower's large-scale solar photovoltaic O&M project (Tainan Salt Field Solar PV Farm)	✗ Due to that the client changed contract from turnkey (EPC) to labor-based model, the project was not awarded since it is not cost-effective for the Company.	
	Secure the O&M contract of onshore substation for Ørsted's Greater Changhua 1&2a project	✓	
Renewable Energy Development	Obtain the construction permit for 33.6 MW onshore wind power project	⚠ In response to the review procedures of local and competent authorities, as well as feedback from relevant stakeholders, the development plans and application documents are being continuously revised and updated. The process of obtaining construction permits is ongoing.	2.2.1 Solar Energy 2.2.2 Wind Power
	Obtain the establishment permit for 45.95 MW solar photovoltaic project and apply for construction permit	⚠ To continue processing the electricity enterprise establishment procedures, TCC properly handles stakeholder communication, optimizes contingency plans, and revises application documents based on amendments and additions.	
	Achieve renewable energy retailing of 192 GWh	✓	2.2 A Reliable Green Electricity Expert
	Obtain Energy Administration's approval to expand shared substation at Tainan Cigu by 60 MW (total 180 MW)	✓	2.2.1 Solar Energy
	Secure land use consent for approx. 60 MW solar photovoltaic project	✗ Considering development risks, the Company has carefully evaluated potential investment targets. In addition to actively participating in public tenders for solar photovoltaic projects (including solar-plus-storage projects), it continues to explore a variety of development opportunities. However, no suitable investment target has been secured to date.	2.2.1 Solar Energy

Material Topics	2024 Goals/Important Milestones	Achievement Status	Corresponding Sections
Ethical Management and Legal Compliance	Complete the report on the Company's Ethical Corporate Management Principles to the Board of Directors before the end of March	✓	1.2 Corporate Governance and Ethical Management
	Organize at least 2 sessions of education and training on ethical management	✓	
	Organize 1 session of legal-related education and training for employees	✓	
Occupational Safety and Health	Complete the renewal of ISO 45001:2018 management system surveillance audit	✓	4.1.4 Employee Benefits 4.3 Healthy Workplace
	Ensure workplace and equipment safety; complete more than 5 major environmental, safety, and health improvements and optimizations at the Guan Tian Plant	✓	
	No major occupational safety or environmental violations at Star Energy with individual fines of NT$50,000 or more	✗ One violation of the Occupational Safety and Health Act occurred at Star Energy, resulting in a fine. Corrective and preventive actions have been implemented, and a review report has been submitted.	
	Conduct 2 workplace environment monitoring sessions and various internal inspections at the Taipei Office	✓	
	Complete risk identification and assessment of workplace misconduct and an internal questionnaire; conduct two training sessions for managers on the prevention of workplace violence	✗ A risk assessment on workplace misconduct and 1 training session for managers on the prevention of workplace violence were conducted.	
	Implement general occupational safety and health training for new and current employees	✗ General occupational safety and health training was conducted for new employees only.	
	Conduct regular employee health examinations and provide on-site medical services	✓	

Material Topics	2024 Goals/Important Milestones	Achievement Status	Corresponding Sections
Talent Management and Development	Promote the English proficiency enhancement program: Conduct English conversation courses with at least 150 training hours and provide business English training for managerial staff	✓	4.1.3 Talent Cultivation
	Continue implementing the care program for new employees	✓	
	Hold Talent Cultivation and Development Advisory Committee meetings on a regular basis	✓	
	Implement mid- and senior-level development program (for chief level and above) with an average training duration of at least 26 hours per person	✓	
	Ensure an average of at least 36 training hours per employee	✓	
	Implement employee job rotation practices	✓	
Energy Management and Circular Economy	Achieve a fuel substitution rate (SRF and scrap tires) of ≥ 30%	✗ The heating value substitution rate of alternative fuels (SRF and scrap tires) at the Guan Tian Plant in 2024 was 29.77%.	3.1.2 Energy Saving and Carbon Reduction 3.2.1 Circular Economy
	Complete identification of carbon emission sources and establishment of data collection models for individual subsidiaries	✓	
	Continue to collaborate with suppliers to apply for joint reuse and achieve 100% coal ash recycling	✓	

Material Topic Management Approach GRI 2-23 · 2-25 · 3-3

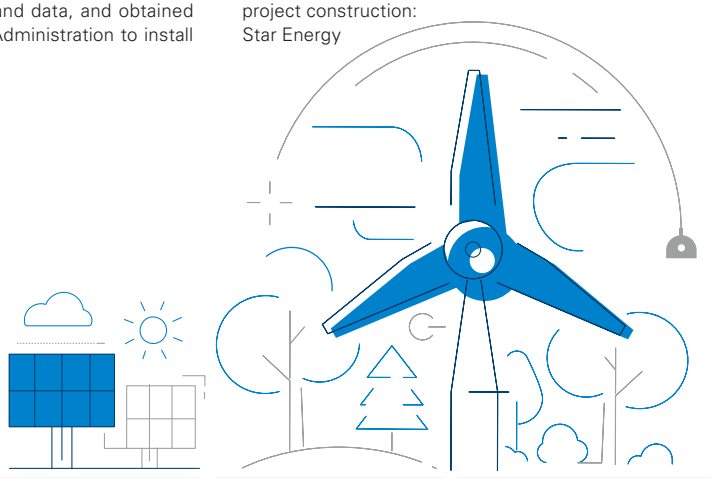
To effectively manage the material topics of TCC, meet the expectations of stakeholders, and reduce potential negative impacts on the environment, people, and the economy, the management approaches for material topics are summarized in the following table:

Y Annually Q Quarterly M Monthly W Weekly D Daily

Material Topic	Policies	Commitment and Goals: Short-term Quantitative Indicators and Major Milestones for 2025	Commitment and Goals: Medium- and Long-term Commitment and Goals	Specific Actions and Achievements in 2024	Responsibilities and Resources	Evaluation and Management Mechanism
Economic Performance	Enhance the operational efficiency of power plants and engineering contracts, expand various power and energy investment and development projects, and actively monitor government energy policies. Invest in energy transition and renewable energy business development to maintain long-term stable profitability.	1. Ensure an 90% bid success rate for existing ancillary services resources and review pricing strategies to enhance revenue. 2. Deepen investment in gas-fired independent power producers (IPPs) and actively assess expansion under controllable risk.	In response to the net-zero emissions trend, energy transition, and power market development, plan the Company's sustainable management direction and strategies for low/zero carbon, and carbon neutrality, while strengthening the related technical workforce.	1. Engaged external partners to develop practical collaborations and signed MOUs for large-scale energy storage leasing and operation services. 2. Adjusted pricing strategies flexibly to achieve a 100% winning rate in the ancillary service market for existing resources (Guan Tian Plant) 3. Secured Taipower's Changbin solar-plus-storage and Nangang primary substation projects, and continued to actively participate in tenders.	• Main responsible department: Finance Dept. • Operation of the existing cogeneration plant: Guan Tian Plant • Management of the invested power plants: Planning & Investment Management Dept. • Power plant development and investment; construction contracting: Project Development Dept., Engineering Dept., and Star Energy	1. Regularly track and review related business activities W M Q 2. Review the implementation status of the Company's annual KPIs Q 3. Regularly report on relevant operational performance to the Board of Directors
Supply Stability and Reliability	Supply stable and reliable steam and electricity to customers with high-efficiency and low-polluting power generation methods.	1. Operational reliability of Guan Tian Plant ≥ 97.18%. 2. Secure the O&M contract for Taipower's large-scale solar photovoltaic energy project (Tainan Salt Field Solar PV Farm).	1. Achieve operational reliability of 100% and maintain a stable and reliable supply of steam and electricity to customers. 2. Zero equipment and personnel incidents throughout the year. 3. Integrating human and material resources to pursue maintenance work for wind power and solar photovoltaic energy projects, as well as shared substations for renewable energy, expanding O&M business opportunities.	1. Maintained direct communication with customers to understand their needs and obtained incident forgiveness if necessary. 2. Customer satisfaction survey score reached 95.38 in 2024. 3. Fully implemented scheduled overhaul and maintenance operations. 4. Monthly training and evaluations for frontline operators. 5. Operational reliability for 2024 reached 99.53% (due to a boiler shutdown for equipment failure; subsequent preventive measures were implemented to avoid recurrence). 6. Secured the O&M contract of onshore substation for Ørsted's Greater Changhua 1&2a project.	• Operation of the cogeneration plant: Guan Tian Plant • Management of the invested power plants: Planning & Investment Management Dept. • Renewable energy project O&M: Star Energy • Substation O&M: Star Energy	1. Guan Tian Plant: Check operation-related data. D Monitor operational reliability. Q Conduct customer satisfaction surveys. Y 2. Track the operational status of invested power plants. M

Material Topic	Policies	Commitment and Goals		Specific Actions and Achievements in 2024	Responsibilities and Resources	Evaluation and Management Mechanism
		Short-term Quantitative Indicators and Major Milestones for 2025	Medium- and Long-term Commitment and Goals			
Corporate Governance	The Company conducts annual reviews on a rolling basis to formulate future business strategies, establishes the Sustainability Committee, strengthens the competencies of the Board of Directors and functional committees, refines the Company's systems and regulations, and improves information disclosure, and reduces operational risks to fulfill corporate sustainable development.	1. Strengthen the competencies of the Board of Directors and functional committees. 2. Improve the Company's systems and regulations in accordance with Corporate Governance 3.0 and evaluation criteria. 3. Rank in the top 5% of the Corporate Governance Evaluation.	Fulfill ethical management and legal compliance, improve systems and regulations of the Company in accordance with corporate governance evaluation guidelines, strengthen the functions of the Board of Directors and relationships of trust with stakeholders, enhance information transparency and accuracy, and commit to corporate social responsibility, striving to promote sustainable operations and development.	1. Conducted the 2024 annual performance evaluation of the Board of Directors and functional committees, and reported to the Board in March. In 2024, the attendance rate of the TCC Board was 95.38%, and the attendance rates for the Remuneration Committee, the Audit Committee and the Nominating Committee were all 100%. 2. In 2024, each director completed an average of 8.47 hours of training. 3. Revised the Rules of Procedure for Board of Directors Meetings and the Audit Committee Charter. 4. Ranked in the top 5% of listed companies in the 11th (2024) Corporate Governance Evaluation. 5. Submitted the 2023 Sustainability Report to the Board in May 2024; held the Sustainability Committee meeting in December 2024; reported to the Board on the implementation of 2024 sustainability initiatives and stakeholder engagement. 6. Awarded the Top 100 Sustainability Exemplary Awards and the Sustainability Report Gold Award of the Taiwan Corporate Sustainability Awards (TCSA). 7. Ranked 8th in the medium-sized enterprise category of *CommonWealth* Magazine "2024 Excellence in Corporate Social Responsibility Award".	• Sustainable development strategy: Sustainability Committee • Coordinating the implementation of ESG-related work: Planning & Investment Management Dept. • Formulation and review of future business strategies and annual KPIs: Planning & Investment Management Dept. • Designated unit of corporate governance: Secretariat of the Board (Director of the Secretariat of the Board is the chief corporate governance officer)	1. The head of each department reports the implementation of the Company's KPIs. M Report the implementation status of the Company's KPIs to the management. Q The implementation results are reviewed at the end of the year and linked with employee performance. Y 2. Report the progress of sustainable development initiatives. W M Report to the Board of Directors on the planning and implementation of sustainable development initiatives. Y 3. Formulate and review future business strategies annually, and report to the management as well as the Board of Directors. Y
Risk Management	Establish risk management system to effectively reduce the occurrence of risks and minimize or avoid the impact of risks; promote risk awareness for all employees and shape the risk management culture by incorporating risk management into business strategy planning and daily business practices.	1. Complete the risk management plan and incorporate analysis of climate-related risks and opportunities. 2. Continuously review and refine the internal control system based on environmental and operational changes.	1. Strengthen the internal control system. 2. Continuously improve the current risk management system and framework. 3. Complete implementation of IFRS S1 and S2 standards	1. Completed the 2024 risk profile and corresponding control measures, with implementation and review in place. 2. On August 9, 2024, the Board of Directors approved revisions to the internal control system, including the addition of 1 operation and the revision of 19 operations to ensure the effectiveness of internal controls. 3. The Internal Audit Office scheduled a review of risk management items in its audit plan in November 2024 and reported the results to the Board in March 2025.	• Risk management: Risk Management Committee (Planning & Investment Management Dept. as the promoting department) • Development of audit plans and independent review of risk management: Internal Audit Office	1. Risk management project is reviewed and tracked semi-annually. 2. In case of sudden increase of risk scenarios or sudden increase of risk events, relevant departments shall report and take control measures as needed, and submit them to the Risk Management Committee for deliberation when necessary. 3. At least one audit must be conducted annually, with findings reported to the Board of Directors. Y

Material Topic	Policies	Commitment and Goals		Specific Actions and Achievements in 2024	Responsibilities and Resources	Evaluation and Management Mechanism
		Short-term Quantitative Indicators and Major Milestones for 2025	Medium- and Long-term Commitment and Goals			
Evaluation and Response to Electricity Policies	In response to the global carbon reduction trend and the nation's goal of 2050 Net-Zero Emissions, TCC has incorporated energy transition and net-zero transition into its business strategy.	1. Formulate a five-year forward-looking business strategy. 2. Complete the energy policy tracking and analysis report. 3. Complete an assessment report on prospective low-carbon energy sources (e.g., geothermal and long duration energy storage)	1. Continuously monitor government energy policies and international energy development trends to formulate corporate operational strategies. Invest in gas-fired power plants and expand investment, development, EPC, and O&M of renewable energy. 2. Expand diverse business models in the electricity market, including green electricity retailing, ancillary services, and virtual power plants.	1. Completed the 5-year business strategy, the energy policy tracking and analysis report, and the power market ancillary services analysis report. 2. Invested in the development of solar photovoltaic and wind power projects and promoted shared/joint substations. 3. Pursued renewable energy EPC projects, O&M, and renewable energy retailing business. Participated in the ancillary services market to expand new energy businesses.	• Electricity policy evaluation and response strategy: Planning & Investment Management Dept. • Development projects related to renewable energy and gas-fired power plants in response to the energy transition: Project Development Dept., Engineering Dept., and Star Energy	1. Review 5-year business strategies on a rolling basis, and formulate the implementation strategies in response to changes in electricity policies. Y 2. For the Company's various investments and development businesses as well as contracted engineering projects, the annual KPIs are set, with responsible departments performing reviews and tracking. M Q
Renewable Energy	In alignment with the government's 2050 Net-Zero Emissions targets, we focus on the development of solar energy and wind power, continue to invest in renewable energy development, undertake EPC projects, and engage in O&M work. We continuously develop renewable energy retailing and related power market businesses in response to trends such as RE100, energy-heavy industries, and carbon fee.	1. Obtain construction permit for a 25.2 MW onshore wind power project and the establishment permit for 12.8 MW. 2. Obtain the establishment permit for a minimum of 45 MW of solar power electricity enterprise. 3. Reach 246 GWh in renewable energy retailing	In 2029, the cumulative installed capacity of renewable energy is to reach at least 376 MW.	1. Steadily advanced application and permitting processes for solar photovoltaic (including aquavoltaics) and onshore wind power projects, considering local public opinion, ecological environment, and stakeholder engagement, while carefully evaluating new renewable energy developments 2. Achieved a total of over 600 GWh in renewable energy retailing. 3. Organized shared substation visits, collected local grid connection demand data, and obtained approval from the Energy Administration to install the third main transformer.	• Investment evaluation and development application for renewable energy: Project Development Dept. • Retailing of renewable energy: TCC Green Energy • Renewable energy project construction: Star Energy	1. Establish project team for significant investment and development projects. 2. Regularly convene project meetings to track the progress of various renewable energy projects W M



Material Topic	Policies	Commitment and Goals		Specific Actions and Achievements in 2024	Responsibilities and Resources	Evaluation and Management Mechanism
		Short-term Quantitative Indicators and Major Milestones for 2025	Medium- and Long-term Commitment and Goals			
Occupational Safety and Health	The Company is committed to complying with laws and regulations, preventing pollution, encouraging full participation, and ensuring continuous improvement through its environmental, safety, and health (ESH) policies and guidelines, with the aim of enhancing the quality of life for employees and the community.	1. Complete the ISO 45001: 2018 Occupational Health and Safety Management System surveillance audit. 2. The Guan Tian Plant is expected to complete 5 or more major ESH improvement and optimization measures.	Effectively leverage the ISO 45001: 2018 OHS Management System to strengthen hazard identification and risk assessment within the plant, and implement appropriate preventive measures to avoid various hazards.	1. Developed the annual occupational safety and health management plan and ensured that both new and current employees received general occupational safety and health training, ensuring environmental and equipment safety. 2. Completed ISO 45001: 2018 surveillance audit with no major non-conformities or observations. 3. Serving as the core enterprise of the Tainan City Occupational Safety and Health Family, TCC effectively led its members, earning a letter of appreciation from the Labor Affairs Bureau of Tainan City Government. 4. Received the Excellent Occupational Safety Performance Award from the Labor Affairs Bureau of Tainan City Government. 5. Received the Outstanding Performance Award of the Occupational Safety and Health Family from the Labor Affairs Bureau of Tainan City Government. 6. Completed 8 ESH improvements and optimizations at the Guan Tian Plant. 7. Star Energy held 2 road safety seminars and 16 health promotion lectures.	• Occupational safety and health work: Guan Tian Plant-Safety & Environmental Protection Section is responsible for planning and promotion. Each section performs hazard identification and risk assessment in accordance with their powers and responsibilities. • Star Energy: HSE Management Office • Taipei Office: Administration Dept.	1. Implement ISO 45001: 2018 Track related matters in occupational safety meetings. M Ensure regulatory compliance. Q Undergo third-party inspections. Y 2. Star Energy tracks and reviews performance of SMBWA (safety management by walking around). M
Ethical Management	Based on the principles of integrity, transparency, and accountability, the Company requires directors and insiders to uphold ethical and moral standards in all business activities and to implement mechanisms for self-supervision.	1. Report the implementation status of the Ethical Corporate Management Principles to the Board of Directors by the end of March. 2. Hold at least 2 training sessions related to ethical management.	Continue to improve and practice the ethical management supervision mechanism to ensure the effectiveness of the mechanism.	1. The implementation status of the Ethical Corporate Management Principles for the previous year was reported to the Board of Directors on March 13, 2024, and Board approval was obtained for the specific actions undertaken to fulfill the Company's ethical management. 2. During the monthly reporting of equity changes by insiders, reminded directors and supervisors of the important regulations outlined in the Legal Compliance Handbook for Insiders. 3. Conducted 2 sessions of education and training on preventing insider trading and ethical management.	• Dedicated department for supervising the ethical management of the Company: Legal Affairs Office • Organizing ethical management related education and training: Secretariat of the Board • Internal audit: Internal Audit Office (Internal control self- assessment is conducted by each department and reviewed by the Internal Audit Office.)	1. Report to the Board of Directors on the implementation of ethical management and the results. Y 2. During the reporting of equity changes by insiders, remind directors and supervisors of the important regulations outlined in the Legal Compliance Handbook for Insiders. M 3. Conduct education and training or awareness campaign on ethical management to directors, managers and employees. 4. Carry out internal control self- assessment and regular audit plan and conduct irregular audits on an ad hoc basis. Y

Material Topic	Policies	Commitment and Goals		Specific Actions and Achievements in 2024	Responsibilities and Resources	Evaluation and Management Mechanism
		Short-term Quantitative Indicators and Major Milestones for 2025	Medium- and Long-term Commitment and Goals			
Legal Compliance	The Company strictly complies with legal regulations, values intellectual property rights and personal data protection, and has established a comprehensive system to ensure that its operations conform to legal norms and ethical standards.	Maintain compliance with legal regulations, with no major violations.	Maintain compliance with legal regulations, with no major violations.	1. The Guan Tian Plant incurred 2 environmental regulatory penalties in 2024. 2. Reported matters related to intellectual property management to the Board of Directors on November 11, 2024.	Consulting services on laws and regulations: Legal Affairs Office	Report compliance with intellectual property rights to the Board of Directors. Y
Talent Cultivation and Development	To build a comprehensive talent cultivation and retention framework, the Company develops diversified recruitment channels, assists employees with career planning, provides timely rotation and promotion opportunities, offers a wide range of continuing education programs, and ensures competitive compensation and benefits.	1. Implement the new employee care program. 2. Achieve 30 training hours/person for managers and 40 training hours/person for general employees. 3. Carry out the English proficiency enhancement program – English conversation classes totaling 180 hours. 4. Implement job rotation for employees.	1. Professional competency development plan: Identify key competencies across departments aligned with company strategy, and design development plans for key talents. 2. Executive talent development mechanism: Cultivate successors for senior management through systematic training and cross-departmental assignments, forming specialized teams across management, engineering, finance, and other fields. 3. Becoming a talent benchmark enterprise: Continuously optimize the compensation and benefits system to attract and retain top talent.	1. Awarded "2024 Commonwealth Talent Sustainability Award" in the Medium-sized Enterprise Category. 2. Implemented new employee care program. 3. Continued promotion of the English proficiency enhancement program – English conversation classes, totaling 295.5 training hours in 2024. 4. Achieved 29.75 training hours/person for managers and 67.06 training hours/person for general employees. 5. Implemented employee job rotation.	Strategies for talent recruitment and cultivation: Administration Dept.	1. Regularly convene the Talent Cultivation and Development Advisory Committee meeting. Y 2. Talent management related quantitative goals are included in annual KPIs, and they will be tracked in supervisor meetings. M
Energy and Resource Management	The Company complies with environmental protection regulations, attaches great importance to sustainable development of the environment, and continuously promotes department efficiency improvement, environmental protection equipment renewal, waste recycling as well as energy/ resource recycling to achieve energy conservation and carbon reduction, fulfilling the idea of circular economy.	1. Complete 2024 greenhouse gas (GHG) inventory and verification for TCC (parent company). 2. Establish emission source identification and data collection models for consolidated subsidiaries. 3. Achieve a heating value substitution rate of ≥30% using alternative fuels (scrap tire and SRF). 4. Obtain permits for the use of solid biomass fuel. 5. Achieve a waste recycling rate of ≥99.8%.	1. Complete GHG inventory and verification for consolidated subsidiaries. 2. Achieve an average annual electricity savings rate of at least 1.5% from 2025 to 2030. 3. Use scrap tire, SRF, and solid biomass fuel as alternative fuels to reduce coal consumption.	1. Completed emission source identification and data collection model for TCC (parent company). 2. Signed two SRF procurement contracts and conducted trial burnings of SRF from 4 suppliers. 3. Implemented energy-saving and carbon-reduction measures such as equipment upgrades, reducing electricity use and cutting approximately 4,295 metric tons of CO_2e. 4. Achieved an average electricity savings rate of 1.28% from 2015 to 2024 (0.73% in 2024). 5. In 2024, burned 30,137 metric tons of scrap tire and 3,001 metric tons of SRF, reducing coal consumption by approximately 48,274 metric tons. 6. Converted 100% of coal ash into controlled low strength material (CLSM) in 2024.	• Planning and implementing energy-saving and carbon-reduction projects, coordinating the supply and combustion of scrap tire and SRF, maintaining fuels conveying equipment, as well as reusing coal ash: Guan Tian Plant. • GHG inventory and verification planning of the Group: Planning & Investment Management Dept.	1. The implementation performance is evaluated, while scheduling the implementation projects for the next year. Y 2. Based on the boiler's original design, the heating value ratio of 30% for scrap tire burning is used as the benchmark, and the co-firing ratio is adjusted in accordance with the boiler's operating conditions.

CHAPTER 01

Ethical Management and Sustainable Development

Goals

Rank among the top 5% of listed companies in the corporate governance evaluation

Strengthen the competencies of the Board of Directors and functional committees and enhance the engagement with stakeholders

Enhance stakeholder trust

Improve the Company's policies and regulations

Uphold the spirit of ethical management and regulatory compliance

Hold 2 sessions of ethical management related education and training

Enhance operational performance

Achieve a 90% success rate in bids for ancillary services

Evaluate expanded investment in independent gas-fired power plants

Implement risk management and internal control system

2024 Performance

Corporate Governance

Ranked among the top 5% of listed companies in the corporate governance evaluation

Percentage of female members on the Board of Directors: 7.7%

Attendance rate of functional committees: 100%

Average training hours for directors: 8.47 hours

Ethical Management

Conducted 3 sessions of education and training on preventing insider trading and ethical management

Economic Performance

Earnings per share (EPS) reached NT$1.85

Risk Management

Developed and implemented the 2024 risk profile and related control measures

No significant internal control deficiencies in 2024

Taiwan Corporate Sustainability Awards (TCSA)

Sustainability Report Gold Award

Top 100 Sustainability Exemplary Awards

***CommonWealth* Magazine Excellence in Corporate Social Responsibility Award**

Ranked 8th in Medium-sized Enterprise category

Material Topics

- Economic Performance
- Corporate Governance
- Risk Management
- Ethical Management
- Legal Compliance

1.1 About TCC

1.1.1 About TCC Group GRI 2-1、2-6

TCC was established in 1992 and listed on the market in 2003, with a paid-in capital of NT$7.3 billion. TCC is the first listed private electric power company in Taiwan.

When TCC was first established, the Company specialized in providing cogeneration technology. In addition to a joint-venture investment in founding Ta-Yuan Cogen Co., Ltd. TCC has successively built several diesel engine cogeneration power plants based on the BOT (build-operate-transfer) model. The Company independently established the Guan Tian Cogeneration Plant, providing regional energy integration services for the Guantian Industrial Park. In alignment with the government's energy policy, TCC has applied ourselves to investing in, constructing, and operating independent gas-fired power plants, including Star Energy Power, Sun Ba Power, and Star Buck Power. The Company has also invested in Kuo Kuang Power through equity acquisition. Currently, the four gas-fired power plants account for about 33% of the total installed capacity of independent power producers, and nearly 4.5% of total installed capacity in Taiwan, playing an important role in domestic power supply.(Note)

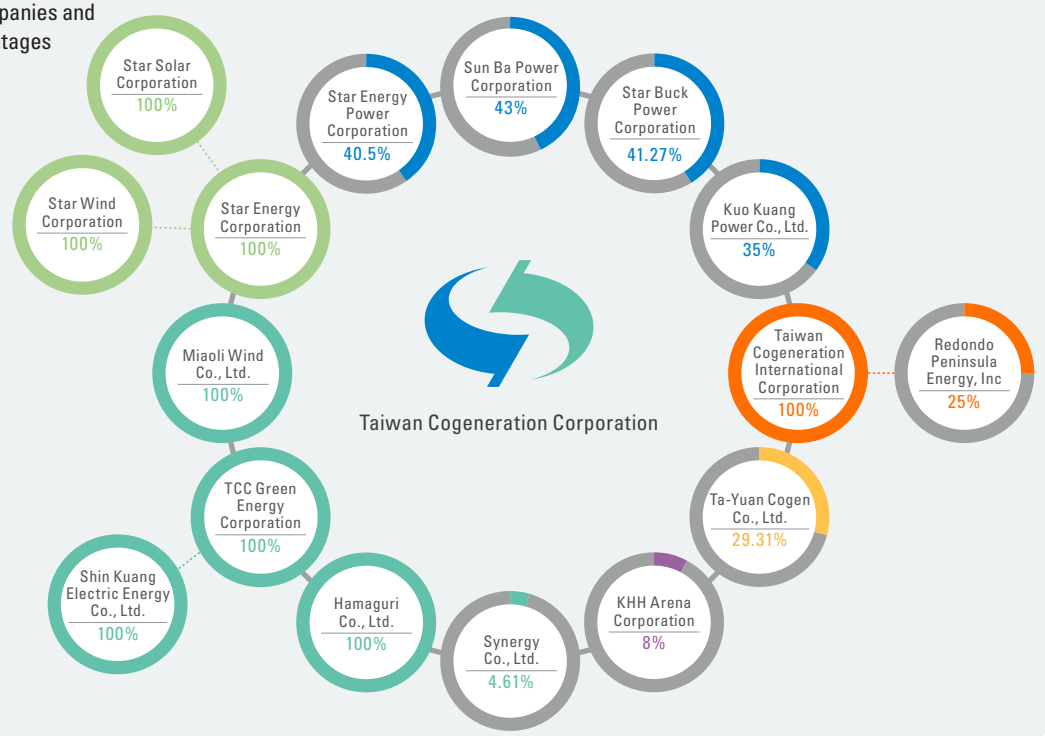
In recent years, in response to the net-zero emissions targets and global sustainability trends, TCC has actively expanded our renewable energy business. We have become the first company in Taiwan capable of providing comprehensive services in renewable energy, including investment and development, construction, operation and maintenance (O&M), green electricity retailing, and energy storage. TCC's subsidiary, Star Energy, not only undertakes engineering, procurement, and construction (EPC) projects for solar power, wind power, and transmission and substation systems, but also invests in and develops its own solar and onshore wind power projects. TCC Green Energy, another Company subsidiary, has demonstrated outstanding performance in green electricity retailing, having cumulatively sold over 600 GWh of green electricity by the end of 2024. It has also entered the ancillary service business. Over more than 30 years of continued innovation and growth, TCC has remained focused on our core competencies, enhancing our competitive advantage to achieve the goal of sustainable corporate development.

What the TCC Group Does

- **Investment and development:** Investing in cogeneration plants through sole proprietorship, joint venture, or BOT, and selling the steam and electricity produced by cogeneration plants to partner companies and nearby users.
- **Vertical integration:** Investment, construction, and O&M for thermal power plants, cogeneration plants, and renewable energy power plants.
- **All-around service:** Comprehensive, vertically-integrated services, including planning, design, procurement, installation, construction management, financial planning, environmental protection, and O&M for thermal power plants, cogeneration plants, renewable energy power plants, transmission lines, substations, and related projects.
- **Engineering, procurement, and construction (EPC):** Engineering, procurement, construction, technical support, and consulting services for thermal power plants, cogeneration plants, renewable power plants, transmission lines, substations, and related projects.
- **Renewable energy O&M:** O&M for large-scale solar photovoltaic power plants and onshore wind farms; integrating local offshore O&M teams; Renewable Energy O&M Center.
- **New energy services:** Renewable energy retailing, ancillary services, energy storage system planning and construction.

TCC's invested companies and shareholding percentages

(as of December 31, 2024)



Note: The total installed capacity of the TCC four invested independent gas-fired power plants is 2,550 MW. As of 2024, the total installed capacity of all independent power producers in Taiwan is 7,798 MW; and the total installed capacity of the Taipower system is 57,923 MW.

Operating Site Locations

The head offices of TCC and Star Energy are both located in Taipei City. Operating sites also include the Guan Tian Cogeneration Plant in Tainan City. TCC's invested independent power producers (IPPs) are located in Changhua County, Tainan City, and Taoyuan City.

Category	Invested Company	Services and Features
Gas-Fired Power Plant	Star Energy Power Corporation	Operates Chang-Bin Gas-Fired Power Plant; installed capacity: 507 MW
	Sun Ba Power Corporation	Operates Fong Der Gas-Fired Power Plant; installed capacity: 1,014 MW
	Star Buck Power Corporation	Operates Star Buck Gas-Fired Power Plant; installed capacity: 549 MW • The EPC project built by TCC, which is the first company in Taiwan with the EPC project experience for gas-fired combined cycle power plant
	Kuo Kuang Power Co., Ltd.	Operates Kuo Kuang Gas-Fired Power Plant; installed capacity: 480 MW • Invested by TCC through mergers and acquisitions of overseas equity
Cogeneration Plant	Ta-Yuan Cogen Co., Ltd.	Operates Ta-Yuan Cogeneration Plant (82 MW) and the plant in the Taoyuan Environmental Science & Technology Park • A TPEx listed company • Dayuan Industrial Park energy and resource integration services
Construction Engineering (Electricity Professional)	Star Energy Corporation	Design, planning, procurement, contracting, construction, and O&M for power plants, transmission lines, and renewable energy related projects • Contracted Taipower's 150 MW solar PV project in Tainan • Constructed the Cigu shared substation
Overseas Power Business Investment	Taiwan Cogeneration International Corporation	Overseas investment business
	Redondo Peninsula Energy Inc.	Development of Subic Bay Coal-Fired Power Plant in the Philippines

Category	Invested Company	Services and Features
Renewable Energy Development	TCC Green Energy Corporation	Green energy investment and development, renewable energy retailing and ancillary services • In 2019, obtained the second renewable energy retailer license in Taiwan • The first kWh of renewable electricity was wheeled in October 2020; cumulative electricity sold by the end of 2024 exceeded 600 GWh
	Hamaguri Co., Ltd.	Aquavoltaic project investment and development
	Shin Kuang Electric energy Co., Ltd.	Operates the Shin Kuang Photovoltaic Power Plant • RC rooftop 5 MW photovoltaic power plant, which began commercial operation in 2019
	Star Wind Corporation	Onshore wind power investment, development, construction, and operation • Star Wind's 10.35 MW wind farm, which began commercial operation in 2020
	Star Solar Corporation	Solar photovoltaic investment, development, construction and operation • Wushantou Reservoir Floating Photovoltaic Power Plant Phase I; installed capacity: 13.7 MW • Wushantou Reservoir Floating Photovoltaic Power Plant Phase II; installed capacity: 13.2 MW (under construction)
	Miaoli Wind Co., Ltd.	Operates the Dapeng and Zhunan onshore wind farms; total installed capacity: 49.8 MW
	Synergy Co., Ltd.	Renewable energy projects development and O&M
Other	KHH Arena Corporation	Operation and management for Kaohsiung Arena and ancillary facilities

1.1.2 Economic Performance GRI 201-1

Financial Performance

Creating value for investors is an important responsibility of TCC, and in recent years, TCC has maintained steady performance. 2024 consolidated net profit after tax was NT$1,346,776,000, and the total amount of taxes paid accounted for 1.14% of the Company's revenue. For more financial information, please refer to the Annual Report.

Unit: NT$1,000

Year	Direct Economic Value Generated	Economic Value Distributed (Expenditure)						Economic Value Retained
	Revenue (Note 1)	Operating Costs	Employee Salary and Benefits	Interest on Debts/ Loans	Tax	Fee	Community Investments	Net Profit
2022	5,527,513	4,040,655	480,784	86,457	88,863	12,623	1,557	917,015
2023 (Note 2)	6,748,167	4,727,724	657,917	92,979	65,439	7,876	2,937	1,242,385
2024	10,280,739	8,351,545	567,834	73,492	80,186	13,815	1,771	1,346,776

Note 1: The increase in 2024 revenue as compared to 2023 was primarily due to greater construction progress on projects such as Ørsted Phase II, resulting in higher revenue recognized based on progress. Revenue primarily includes operating revenue and the share of profit/loss of associates accounted for using the equity method.

Note 2: 2023 direct economic value and certain distributed values have been restated due to the disposal of Yi Yuan Corporation on May 22, 2024. Profit and loss for the discontinued operation must be presented separately.

Net profit after tax and EPS

	2022	2023	2024
Net profit after tax (parent company only)	NT$906,774,000	NT$1,252,275,000	NT$1,349,638,000
EPS	NT$1.44	NT$1.82	NT$1.85

Operating revenue

Unit: NT$1,000

	2022	2023	2024	Reasons for Change
Sales Revenue	1,690,298	1,479,009	1,633,609	• Decrease in 2023 revenue as compared to 2022: Primarily due to a reduction in electricity sales revenue from Miaoli Wind (subsidiary) and Chingshuei Geothermal Power (sub-subsidiary). • Increase in 2024 revenue as compared to 2023: Primarily due to increased steam sales by the Company and higher substation service income from Star Energy (subsidiary).
Construction, O&M, and Consulting Service Revenue	2,978,583	3,804,961	7,498,625	• Increase in 2023 revenue as compared to 2022: Primarily due to the increased progress of Star Energy's (subsidiary) projects as compared to 2022, resulting in an increase in project revenue. • Increase in 2024 revenue as compared to 2023: Primarily due to the increased progress of Star Energy's (subsidiary) projects as compared to 2023, resulting in an increase in project revenue.
Total	4,668,881	5,283,970	9,132,234	

Non-operating revenue and expenses

Unit: NT$1,000

	2022	2023	2024	Reasons for Change
Investment Income	791,123	1,398,007	1,098,754	• Increase in 2023 income as compared to 2022: Primarily due to the rise in natural gas prices, increased dispatch by Taipower for the gas-fired power plants, and the insurance compensation income recognized by Star Buck Gas-fired Power Plant. • Decrease in 2024 income as compared to 2023: Primarily due to the decline in natural gas prices, resulting in lower income from gas-fired power plants.
Other	(21,110)	(70,484)	(100,470)	• Increase in 2023 losses as compared to 2022: Primarily due to a decrease in recognition of foreign currency exchange gains, an increase in interest expenses, and the recognition of goodwill impairment losses for Hamaguri Co., Ltd. (subsidiary). • Increase in 2024 losses as compared to 2023: Primarily due to further decrease in foreign exchange gains and recognition of goodwill impairment from Miaoli Wind.
Total	770,013	1,327,523	998,284	

Net defined-benefit liabilities

Unit: NT$1,000

	2022	2023	2024
Net defined-benefit liabilities	112,088	121,842	109,112

Note: Net defined-benefit liabilities are employee pension provided in accordance with the Labor Standards Act.

Earning distribution

The dividend distribution and shareholders' return on investment in the last three years are as follows:

Unit: NT$ (NT$1,000 for net profit after tax)

	2022	2023	2024
Net Profit after Tax (Parent company only)	906,774	1,252,275	1,349,638
EPS (earnings per share)	1.44	1.82	1.85
Add: Adjustment Item (Note 1)	0.38	0.43	0.52
Earnings per share available for distribution	1.92	2.15	2.34
Cash dividends per share (Note 3)	1.05	1.93	2.1
Stock Dividends Per Share (Note 3)	0.7	-	-
Dividend Distribution Ratio (Note 2)	101%	100%	101%

Note 1: Includes the effect of invested power plant IFRS adjustment.

Note 2: Ratio after deducting 10% legal reserve.

Note 3: The 2022 earnings distribution was adjusted due to an increase in the number of outstanding shares resulting from a cash capital increase on June 6, 2023. Therefore, the ratios for stock and cash dividends were adjusted. The cash dividend per share was adjusted from NT$1.05 to NT$0.90, and the stock dividend per share was adjusted from NT$0.70 to NT$0.60.

1.2 Corporate Governance and Ethical Management

1.2.1 Corporate Governance

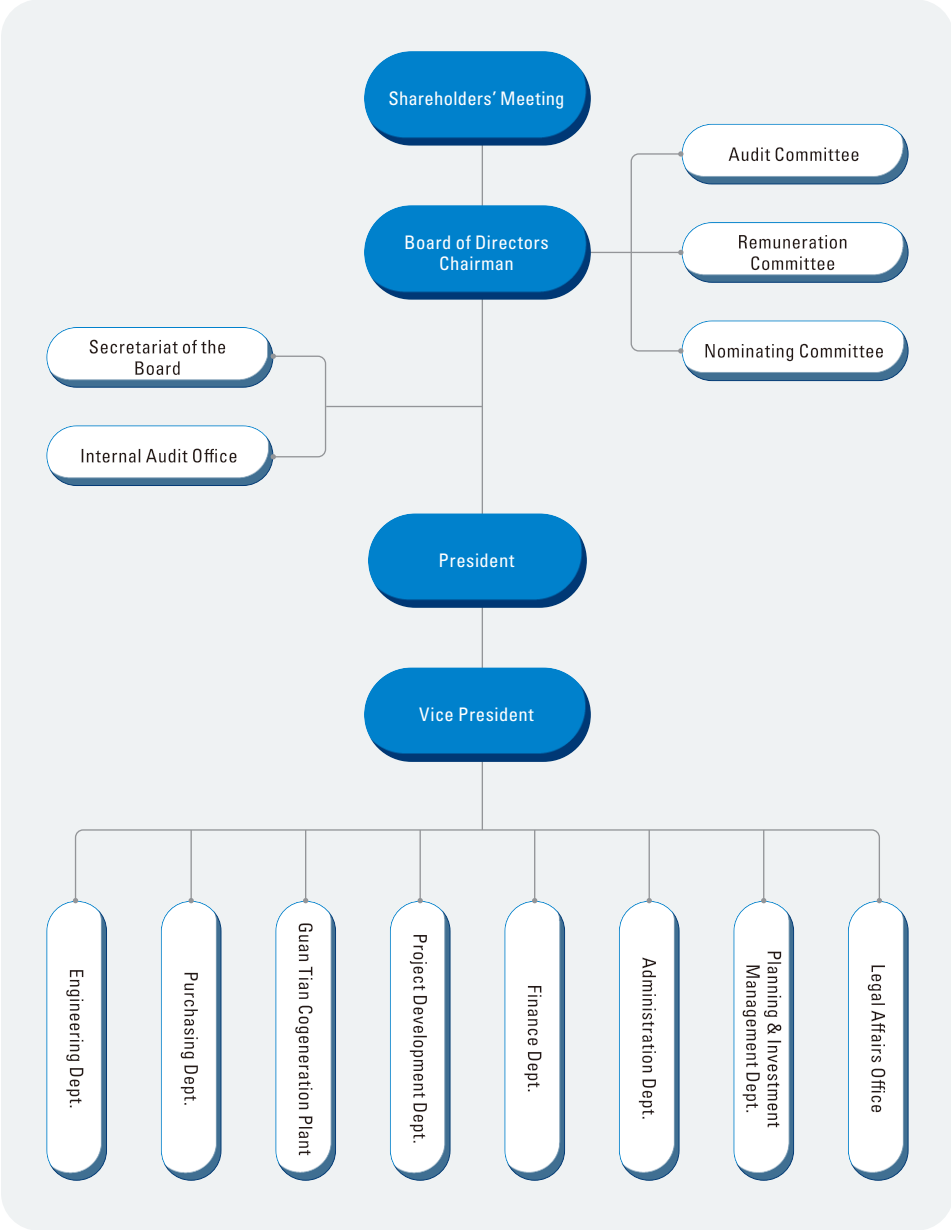
GRI 2-9、2-10、2-11、2-15、2-17、2-18、2-19、2-23、2-24、405-1

Board of Directors

The Board of Directors is the Company's highest governance body. The Board is responsible for overseeing the overall business strategy and major policies, supervising the management team, and being accountable to shareholders. The Internal Audit Office is established under the Board to carry out internal audits, ensuring the continuous and effective implementation of internal control systems and assisting the Audit Committee in fulfilling its supervisory duties. In addition, the Board has established a Secretariat of the Board and appointed a dedicated Chief Governance Officer, who is responsible for matters relating to the Shareholders' Meeting, Board of Directors, functional committees, and overall corporate governance, in order to enhance decision-making efficiency and transparency.

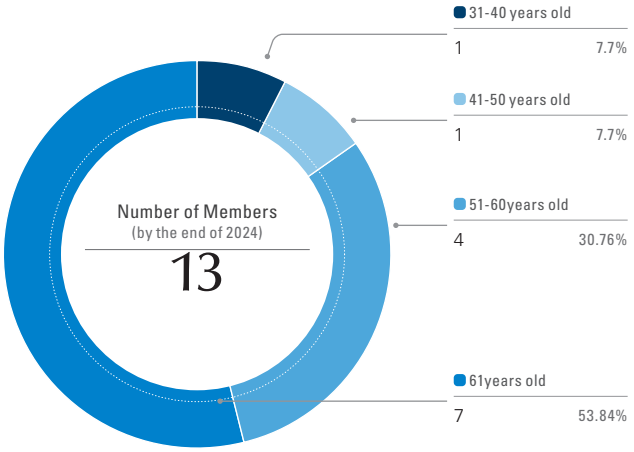
Board Diversity and Independence

The Shareholders' Meeting is TCC's highest decision-making body, and shareholders elect the Company's directors in accordance with the law. As stipulated in the Articles of Incorporation, the Board of Directors and shareholders who hold 1% or more of the Company's shares nominate candidates for director elections. The nomination process fully considers stakeholder viewpoints and candidates organizational development and management capabilities. All nominations are reviewed by the Nominating Committee and submitted to the Board of Directors for approval. To ensure a well-structured board, TCC's Board of Directors comprises members of different genders, ages, and diverse academic, industry, and professional backgrounds. As of the end of 2024, the Board consists of 13 directors, including 3 independent directors. Male members account for 92.3% (12 members), and female members account for 7.7% (1 member). The term of office is three years. TCC will continue to increase gender diversity on the Board to further optimize its composition and promote inclusive development.



For more information on Board members, please refer to page 7-9 of the Annual Report.
For the Board Diversity Policy and members' diverse backgrounds, please refer to the Board of Directors section.

The Board members demonstrate independence. The Chairman does not hold any executive management position, and there are no spousal or second-degree kinship relationships among the directors. To avoid conflicts of interest, in accordance with the Rules of Procedure for Board of Directors Meetings and the organizational charters of each committee, any director or committee member who has a conflict of interest in a matter under discussion shall not participate in the discussion or voting and must recuse themselves during deliberation and voting. The composition and diversity of the Board and its functional committees are shown in the table below.



For details on Board members' academic and professional backgrounds, core diversity attributes, and Board operations, please refer to the Board of Directors section and pages 28–31 and 117–118 of the Annual Report.

Functional Committee Operations

Audit Committee

Primary responsibilities

- Assist the Board of Directors in overseeing the proper presentation of the Company's financial statements.
- Handle matters related to the appointment, dismissal, independence, and performance of the independent auditors.
- Ensure effective implementation of internal controls.
- Ensure compliance with laws and regulations.
- Conduct risk management for existing or potential risks related to accounting, auditing, financial reporting processes, and the quality and integrity of financial controls.

2024 operations overview

- 5 meetings were held in 2024
- Committee member attendance rate: 100%

100%

Remuneration Committee

Primary responsibilities

- Periodically review the organizational charter and propose amendments.
- Establish and regularly review the policies, systems, standards, and structures for the annual and long-term performance goals and remuneration of the Company's directors and managers.
- Periodically assess and determine the remuneration of directors and managers.

2024 operations overview

- 3 meetings were held in 2024
- Committee member attendance rate: 100%

100%

Nominating Committee

Primary responsibilities

- Establish the standards for the professional knowledge, skills, experience, gender diversity, and independence required of Board members, and accordingly identify, review, and nominate candidates for directorship.
- Develop and maintain the organizational structure of the Board and its committees, and conduct performance evaluations of the Board, directors, and each committee.
- Establish and regularly review the training and continuing education plan for directors.
- Periodically assess and review the Company's Corporate Governance Best Practice Principles.

2024 operations overview

- 1 meeting was held in 2024
- Committee member attendance rate: 100%

100%

Note: More than half of the functional committee members are independent directors.

Composition and operation of the functional committees

Board of Directors Performance Evaluations

To enhance corporate governance and strengthen the effectiveness of the Board, TCC has established the Regulations for Board of Directors Performance Evaluations and conducts internal evaluations of Board performance annually. The scope of the evaluation includes the overall performance of the Board, individual directors, and each functional committee. In addition, every three years, the Company engages an external specialized independent institution or a team of external experts and scholars to carry out the evaluation. The evaluation results are reported to the Nominating Committee and the Board of Directors, which reviews the feedback and proposes improvement measures. The results are also used as a reference when selecting or nominating directors, and when determining each individual director's remuneration. In support of sustainable development, the Board revised the Regulations for Board of Directors Performance Evaluations in March 2025 to include a sustainability dimension, thereby enhancing the overall comprehensiveness of the evaluation process.

2024 Internal Evaluation Results

Evaluation Period

January 1, 2024 to December 31, 2024

Evaluation Scope

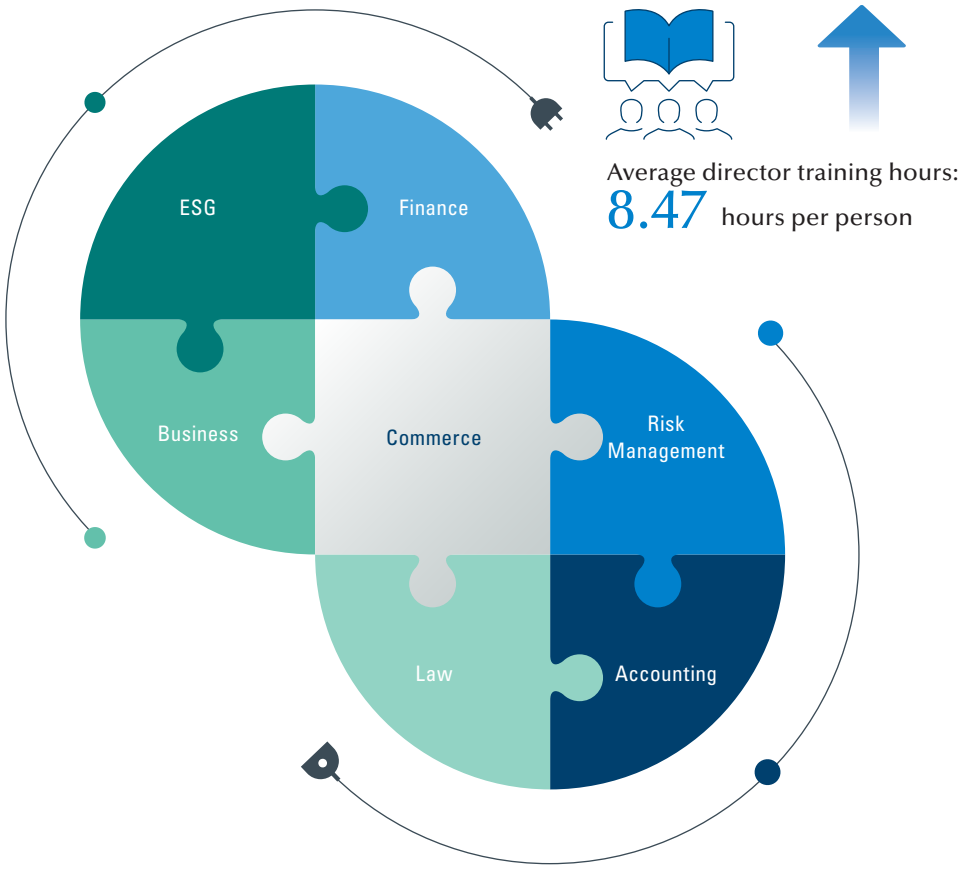
1. Alignment of the goals and missions of the Company
2. Participation in the operation of the Company
3. Awareness of the duties of the Board and functional committees
4. Composition and election of members
5. Directors' professionalism and continuing education
6. Improvement of the quality of the Board and functional committees' decision-making
7. Internal controls
8. Promotion of sustainable development

Evaluation Result

2024 evaluation of the Board and the three major functional committees: "**Good**"

Director continuing education hours and course content

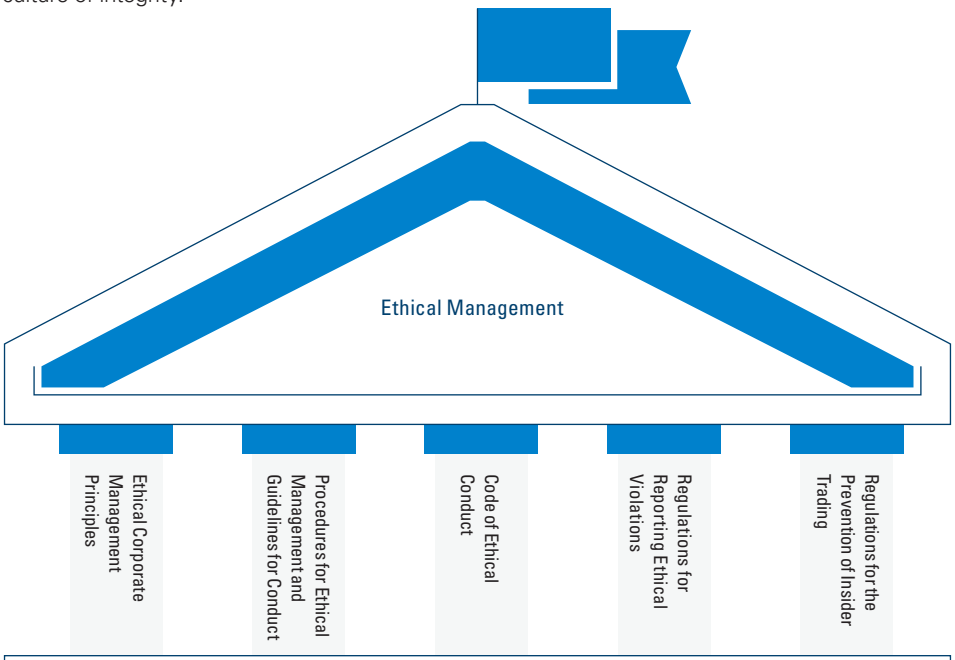
The Company periodically offers training courses related to economic, environmental, and social topics relevant to its operations and arranges for directors to participate in these programs. All directors have met the required training hours in the Company's Directions for the Implementation of Continuing Education for Directors and continue to enhance their knowledge in areas such as ESG, artificial intelligence (AI), gender equality, finance, risk management, and legal compliance. For details on director continuing education, please refer to the Board of Directors section and the Market Observation Post System (MOPS).



1.2.2 Ethical Management and Legal Compliance

GRI 2-26、2-27、205-3、206-1、416-2、417-2、418-1 SASB IF-EU-550a.1

TCC established the Ethical Corporate Management Principles based on "integrity, transparency, and accountability". Operating on the foundation of ethics and integrity, it has long adhered to the integrity norms when engaging in all business activities, follows guidelines such as avoidance of interests, confidentiality of information, non-discrimination and non-exclusion, not accepting illegitimate benefits, operating with integrity, and is committed to establish a good corporate culture of integrity.



Who's responsible: The Legal Affairs Office is responsible for supervising the implementation of ethical management and reporting to the Board of Directors at least once a year.

1. Provide supervision and assistance for incorporating integrity and ethical values into the Company's business strategy, and formulate malpractice prevention measures.
2. Supervise the development of guidelines for conduct.
3. Supervise the planning of organization as well as the related responsibilities, and configure a supervision and checking mechanism for high-risk business activities.
4. Supervise the promotion and coordination of ethics policy awareness campaigns and training.
5. Supervise the planning of reporting system to ensure the effectiveness of implementation.
6. Report to and assist the Board of Directors and managers in reviewing and evaluating the effectiveness of preventive measures on a regular basis.

TCC's ethical management policies and practices

Implementation of ethical management in 2024

Report to the Board

On March 13, 2024, the Legal Affairs Office reported the Company's efforts to promote ethical management to the Board of Directors. The report covered policy implementation, system establishment, whistleblowing procedures and channels. All initiatives were carried out in accordance with the Ethical Corporate Management Principles, with no deviations.

Training and promotion

The Company regularly conducts education and training to prevent violations of ethical conduct. Participants include directors, supervisors, employees, and representatives of investee companies. Each department also promotes ethical management and whistleblowing procedures regularly during departmental or plant meetings.

Ethical management and insider trading prevention education and training

External disclosure and reporting

The Company's Sustainability Report and official website disclose and promote its ethical management policies and whistleblowing channels.

Whistleblowing Channels

To strengthen the whistleblower mechanism, TCC amended the Regulations for the Reporting of Ethical Violations in December 2024. Under the revised regulations, both the designated whistleblowing organization and independent directors simultaneously receive reports. This measure enhances transparency, enables proper oversight, and builds greater trust among employees in the reporting mechanism.

Reporting email: whistle@cogen.com.tw

Reporting hotline: (02) 8798-2000 ext. 626

Regulatory Compliance Overview

TCC Group upholds the principles of integrity and ethical business conduct, strictly complying with legal and regulatory requirements while implementing ongoing compliance promotion and management. In 2024, two major regulatory violation penalties occurred at the Company's Guan Tian Plant, as detailed below:

Violating organization	Description of violation	Regulation	Fine (NT$)	Corrective measure
Guan Tian Plant	Oxygen low concentration deviation exceeded legal standards	Air Pollution Control Act, Article 23, Paragraph 2; Management Guidelines for Stationary Pollution Source Air Pollution Continuous Emissions Monitoring Systems, Article 17, Paragraph 1	150,000	Measurement returned to normal after replacing oxygen analyzer measurement unit
	1. OP DAHS settings inconsistent with the verification report 2. OP raw data status code not labeled as required 3. RATA test items not updated per BAF in inspection report	Air Pollution Control Act, Article 23, Paragraph 2; Management Guidelines for Stationary Pollution Source Air Pollution Continuous Emissions Monitoring Systems, Article 4, Paragraphs 1 & 2, and Article 17, Paragraph 2	300,000	Data and software programs were corrected in accordance with regulations

Note 1: Major regulatory violations are defined as incidents with fines of NT$100,000 or more.
Note 2: No non-monetary sanctions occurred in 2024.
Note 3: In 2023, TCC incurred no penalties. Star Energy was fined twice, totaling NT$160,000.

Litigation with Fair Trade Commission

In March 2013, independent power producers that TCC invests in (Star Energy Power, Sun Ba Power, Star Buck Power and Kuo Kuang Power, collectively referred to as the "IPP Companies") were fined by the Fair Trade Commission for violating Paragraph 1, Article 14 of the Fair Trade Act. Since they actually did not engage in any concerted actions, the IPP Companies filed litigations of revocation with the administrative court in November 2013. As of the end of 2024, the related details are as follows:

Date	Litigation Status
November, 2013	After discussing with lawyers, TCC was convinced that there were no concerted actions among the IPP Companies, therefore, the IPP Companies filed litigations of revocation with the Taipei High Administrative Court.
October, 2014	**The Taipei High Administrative Court ruled in favor of the IPP Companies** and revoked the administrative disposition of concerted actions which was made by the Fair Trade Commission.
June, 2015	The Fair Trade Commission filed an appeal with the Supreme Administrative Court. Later, the Supreme Administrative Court remanded the case for a new trial with the Taipei High Administrative Court.
May, 2017	**The Taipei High Administrative Court ruled in favor of the IPP Companies** and revoked the administrative disposition of concerted actions which was made by the Fair Trade Commission.
September, 2018	The Fair Trade Commission filed an appeal with the Supreme Administrative Court. Later, the Supreme Administrative Court remanded the case for another trial with the Taipei High Administrative Court.
May, 2020	**The Taipei High Administrative Court ruled in favor of the IPP Companies** and revoked the administrative disposition of concerted actions which was made by the Fair Trade Commission.
June, 2022	After the Fair Trade Commission filed an appeal with the Supreme Administrative Court, the court handed down judgments between June and August 2022 to enter judgment on the litigation on its own after reversing the original judgment.
July, 2022	After the IPP Companies filed applications for retrial with the Supreme Administrative Court between July and September 2022, the Supreme Administrative Court dismissed the retrial application filed by Star Buck Power Corporation on December 14, 2023.
April, 2023	On April 14, 2023, following the Supreme Administrative Court issued a final judgment on the aforementioned concerted action, the Appeals Review Committee of the Executive Yuan dismissed the appeals filed by the IPP Companies regarding the fines imposed for the concerted action.
June, 2023	The IPP Companies filed litigations of revocation with the Taipei High Administrative Court regarding the fines imposed for concerted action and the decision on their appeals.

The fines imposed by the Fair Trade Commission in the aforementioned litigations have been paid in installments. See the table below for specifics:

Company	Incidents	Origin	Amount (Unit: NT$100 million)	Legal basis	Competent authority
Sun Ba Power	1	The Fair Trade Commission considered the IPP companies to have violated the Fair Trade Act on account of concerted actions.	4.89	Paragraph 1, Article 14 of the Fair Trade Act	Fair Trade Commission
Star Energy Power	1		3.92		
Star Buck Power	1		1.00		
Kuo Kuang Power	1		3.71		

Additionally, regarding the Taiwan Power Company (Taipower) claim for damages from IPP Companies due to violations of the Fair Trade Act, Taipower has filed a lawsuit with the Taipei District Court. The current lawsuit involves claims of approximately NT$2.489 billion against Star Energy Power, NT$4.257 billion against Sun Ba Power, NT$307 million against Star Buck Power, and NT$2.49 billion against Kuo Kuang Power. The cases against Sun Ba Power, Star Energy Power, and Kuo Kuang Power are still under review by the Supreme Court. Regarding Star Buck Power, the Taiwan High Court also dismissed Taipower's appeal and additional claims on December 28, 2022. However, upon review, the Supreme Court found the original judgment to be incomplete in its reasoning and on November 22, 2023, remanded the case back to the Taiwan High Court for retrial.

1.2.3 External Collaboration GRI 2-28

TCC actively engages in external organizations, participating in mutual exchanges with related industries. It also actively participates in events organized by various associations to gain insights into industry developments and future trends. These efforts help the Company seek potential cooperation opportunities and contribute to its stable development. In addition, TCC actively participates in activities organized by the Taiwan Cogeneration Association. Apart from having senior managers serving as past presidents or secretaries of the association, the Company also assists in organizing academic and technical seminars, publishing the *Cogeneration Journal*, and arranging visits to domestic power plants, cogeneration plants, and related energy facilities. These activities facilitate the exchange of operational and technical experiences.

Participating organization	Association	Type of participation
TCC	Taiwan Cogeneration Association	Chairman/ Group Leader
	Chinese Association for Energy Economics (CAEE)	Director/Member
	Taiwan Institute for Sustainable Energy (TAISE)/Center for Corporate Sustainability (CCS)	Director/Member
	Taiwan Electric Power Association (TEPA)	Director/Member
	The Taiwan Electrical Contractors Association (TTECA)	Member
	Taiwan Association of Energy Service Companies	Member
	Taiwan Wind Energy Association	Member
	Taiwan Photovoltaic Industry Association (TPVIA)	Member
	Chinese Petroleum Institute	Member
	Taipei Neihu Technology Park Development Association	Member
	Taiwan Power and Energy Engineering Association	Member
	Solar PV Generation System Association (PVGSA)	Member
	Taiwan Association for Climate Change and Energy Sustainability	Member
	Taiwan Industry-Academia Technology Alliance for Energy Digital Transformation (TAEDT)	Member
	Taiwan Electric Power Development Association (TEPDA)	Member

Participating organization	Association	Type of participation
TCC	The Institute of Internal Auditors, R.O.C.	Member
	The Illuminating Engineering Society of Taiwan (IEST)	Member
	CommonWealth Sustainability (CWS)	Member
Star Energy	Taiwan Cogeneration Association	Member
	Taiwan Wind Energy Association	Member
	Taiwan Electric Power Association (TEPA)	Member
	The Illuminating Engineering Society of Taiwan (IEST)	Member
	The Taiwan Electrical Contractors Association (TTECA)	Member
	Solar PV Generation System Association (PVGSA)	Member
	Taiwan Regional Engineering Contractors Association (TRECA)	Member
	Taiwan Wind Industry Association (TWIA)	Member
	Taiwan Electrical and Electronic Manufacturers' Association (TEEMA)	Sponsor Member
	Taiwan Photovoltaic Industry System Association (TPISA)	Member
	Water Industry Development & Promotion Association (WIDPA)	Member
	Solar Photovoltaic and Energy Storage Quality and Safety Association (SPEQSA)	Member

1.3 Risk Management

1.3.1 Risk Management Policy and System GRI 2-23

TCC's risk management mechanism is driven by the commitment and leadership of senior management, adopting a top-down approach. Through the processes of risk identification, analysis, evaluation, response, and monitoring, risk management is embedded into the Company's strategic planning, business operations, and daily management. In addition, the Company develops risk management competencies and tools through education and training programs, thereby fostering a risk-aware corporate culture.

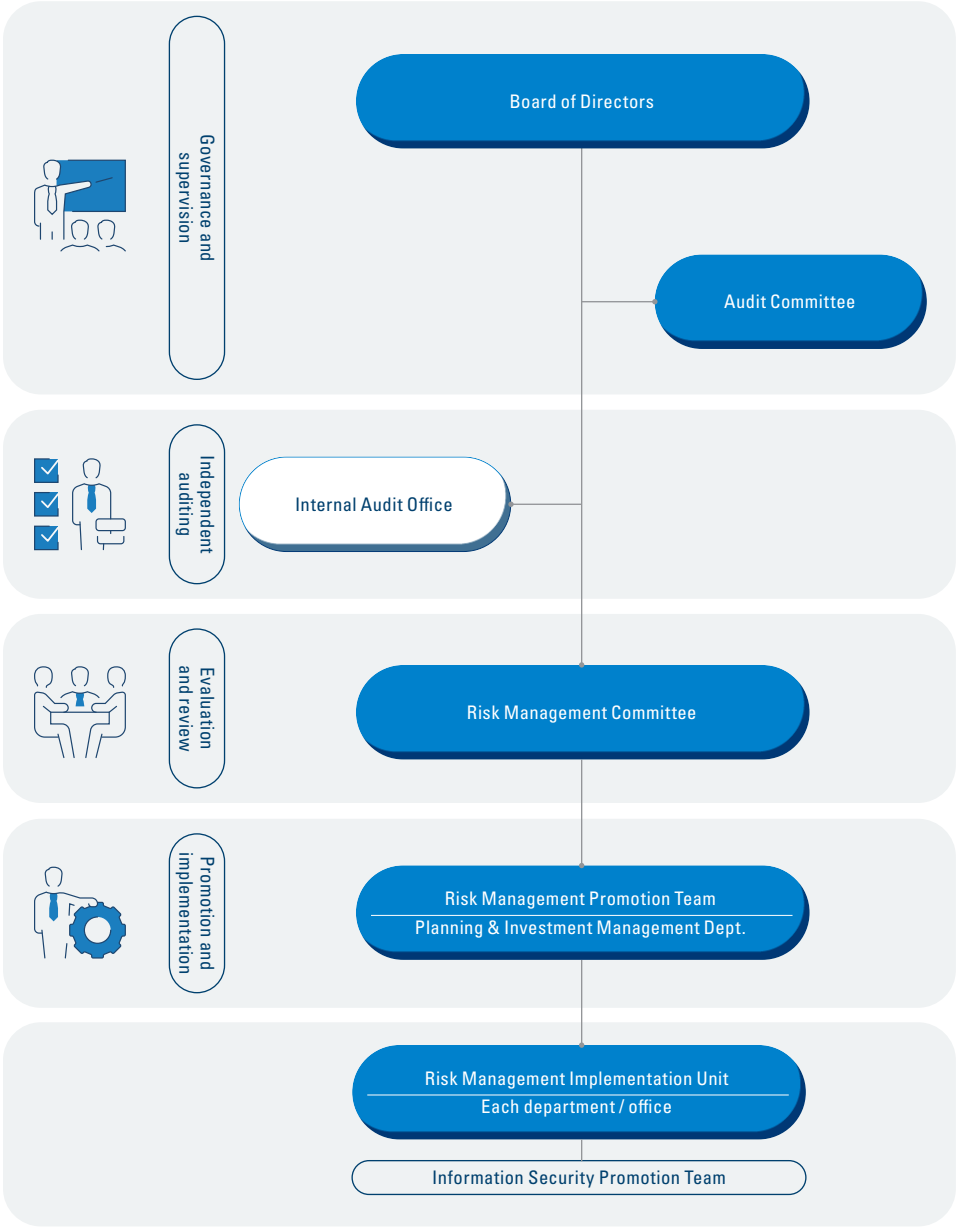
The Company has established the Risk Management Policy and Procedures, as well as the Risk Management Implementation Plan, which incorporate risks related to investment, operations, management, climate change, and unethical conduct into its control framework. These risk management plans are reviewed and updated annually on a rolling basis to effectively reduce the likelihood of risk occurrence and mitigate potential impacts on the Company.

Organizational Risk Management Structure

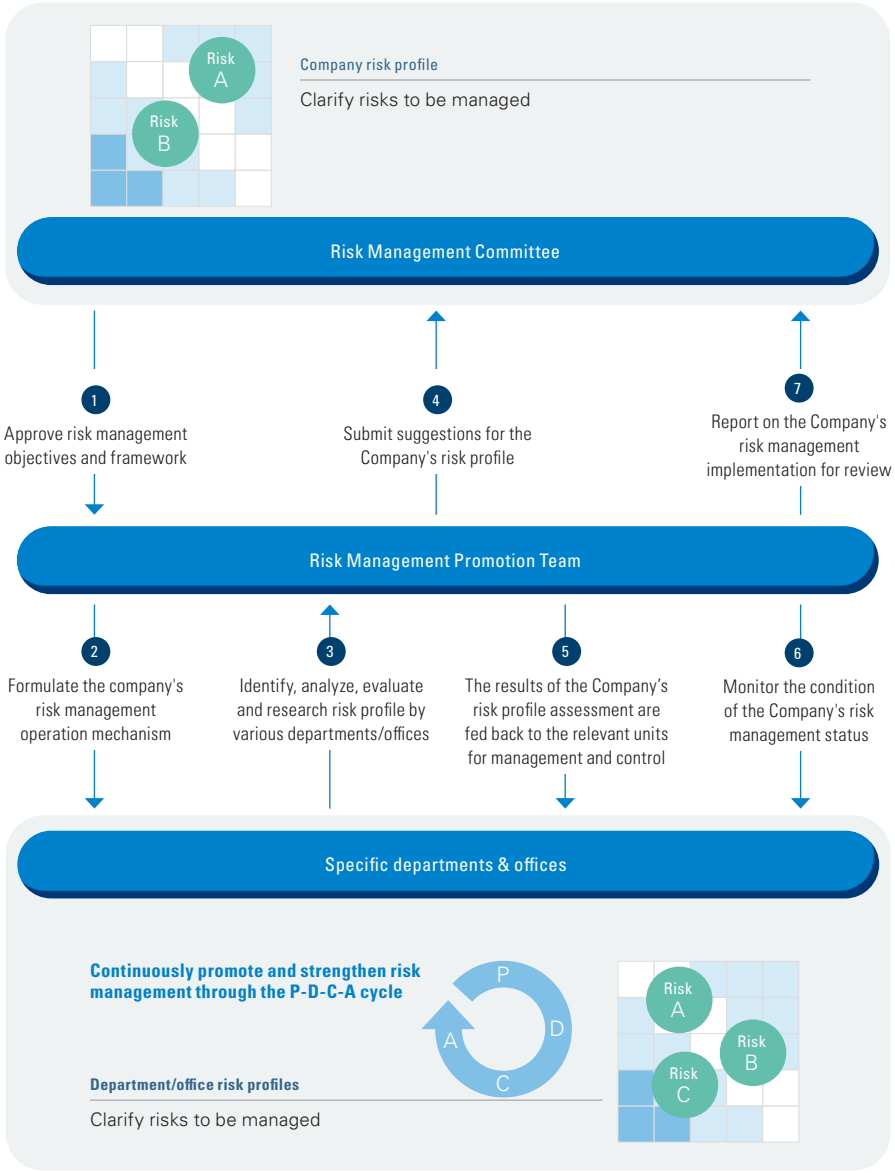
TCC has established a comprehensive risk governance and management framework. Through the involvement of the Board of Directors, the Audit Committee, and senior management, the Company integrates risk management with its strategies and objectives, identifies key risk items, and formulates corresponding control measures and response strategies to ensure the achievement of strategic goals.

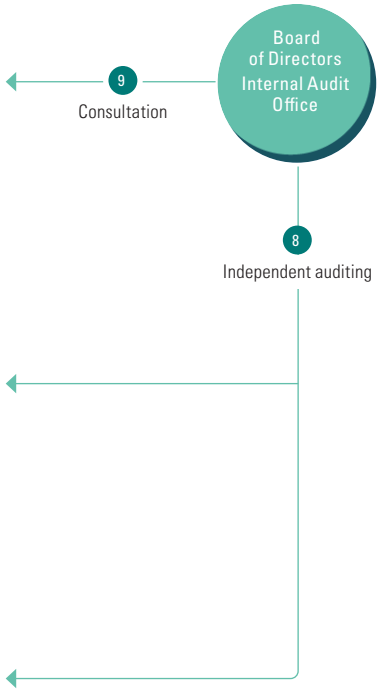
The Board of Directors serves as the Company's highest governing body for risk management. The Board and the Audit Committee are responsible for reviewing and approving the Risk Management Policy and Procedures, and for overseeing the operation of the risk management mechanism to ensure its effectiveness. The Risk Management Committee, chaired by the Chairman, with the President, Vice Presidents, and other senior executives serving as committee members, is responsible for reviewing the annual risk management plan and the implementation of risk control measures. The committee reports on its implementation and operations to the Board and the Audit Committee at least once a year.

Under the committee, a Risk Management Promotion Team is established to carry out risk identification, analysis, evaluation, and response across departments. Each department implements necessary risk management tasks and regularly reports relevant information to the Planning & Investment Management Dept., which serves as the lead department for promoting risk management, ensuring the effective implementation of risk control procedures across departments. In addition, to strengthen information and communication security, an Information Security Promotion Team is set up under the Risk Management Promotion Team. This group is responsible for managing information security-related risk items, regularly reviewing the effectiveness of security risk management measures, and reporting outcomes to the Board of Directors. The Auditing Office is responsible for developing audit plans and independently reviewing risk management matters. It conducts at least one audit per year and reports the findings to the Board of Directors.



Risk Management Operation Process





Risk management implementation status

Jan, 2024

Risk management meeting

Compiled the risk profiles of various departments to create the company-level risk profile.

Jan, 2024

Risk Management Committee

Examined the company-level risk profile for 2024 and confirmed that both the risk management plan and the risk management operational mechanism for 2023 are effective.

Mar, 2024

Complete the risk management plan

1. The risk management plan for 2024 was completed, and control measures were implemented according to the plan.
2. Reported on the implementation status of risk management for the entire year at the Board meeting on March 13, 2024.

Jul, 2024

Review the implementation of risk management measures

Reviewed the implementation of risk management measures for the first half of 2024.

Jan, 2025

Risk management meeting

Reviewed and confirmed that all risk management measures in 2024 were implemented in accordance with the management plan.

Feb, 2025

Risk Management Committee

Examined the implementation status of risk control measures for the year 2024 and confirmed that both the risk management plan and the risk management operational mechanism of the Company are effective.

Risks and Mitigation Measures

Category	Investment	Operations		Management	
Risk	Project Development and Investment	Engineering Project Contracting	Operation of the Guan Tian Plant	Management of Investment Business	Financial Risks Affecting Operations
Mitigation/Control Measures	Mitigation measures for risks associated with renewable energy, invested power plants, overseas investments, and green electricity projects: • Collect information on government policies and legislation timelines; maintain communication with government agencies to reduce development uncertainties. • Strengthen communication with environmental groups and local communities to minimize ecological impacts and gain local support. • Monitor changes in external conditions and promptly assess investment returns. • Develop impairment or exit plans to mitigate financial impact. • Proactively engage with contracted developers to finalize agreements and increase substation utilization. • Integrate internal and external renewable energy plant resources to meet green electricity demand from major users through diversified approaches.	To address potential delays in power engineering project schedules: • Strictly follow the planned construction schedule and hold regular project meetings to monitor progress. • Enforce occupational safety and health regulations, including daily safety gear checks, strict worksite safety management, and penalties for violations. • Supervise contractors in planning required labor in advance and monitor actual attendance.	For risks that may arise in the operation of the Guan Tian Cogeneration Plant, including operational, technology transfer, environmental regulations, and fuel sourcing: • Enhance operational technology and environmental quality management systems, and improve pollution control equipment. • Recruit new personnel and ensure knowledge and skill transfer through the Group's knowledge management (KM) platform, mentorship programs, and core technical training programs. • Monitor changes in coal and alternative fuel markets; fully utilize scrap tire chips and SRF (solid recovered fuel) under safety and regulatory compliance to reduce costs. • Track policy changes and evaluate equipment upgrades to reduce coal consumption and carbon emissions. • Submit voluntary emission reduction plans to apply for preferential carbon fee rates.	To manage risks that may be encountered in the investment business: • Establish KPIs for invested companies to ensure operational performance. • Collaborate with external legal counsel to develop litigation strategies for disputes involving gas-fired power plants. • Proactively communicate with local communities, elected representatives, and the Energy Administration to reach consensus early.	Mitigation measures for financial risks that may impact operations: • Monitor interest and exchange rate trends and compare offers from multiple institutions to lower financing costs. • In addition to negotiating project financing with banks, consider capital increases and corporate bond issuance as alternative funding sources.

Note: TCC also identified climate-related risks. For details, please refer to 3.1 Climate Change and Energy Management.

1.3.2 Strengthening Information Security

The Company places great importance on information security management. In addition to including information security risks in risk control system and conducting revision annually. The Company has established an Information Security Promotion Team, which includes a designated Chief Information Security Officer and dedicated personnel. This team regularly reports the effectiveness of risk management to the Risk Management Committee and the Board of Directors, aiming to reduce information security threats.

Information Security Policy

The use of information technology in corporate operations and management is becoming increasingly widespread. To ensure the confidentiality, integrity, availability, and legality of information assets and critical information infrastructure, the Company has established the Information Security Policy and Management Mechanism. It is necessary to conduct risk assessments and appropriate protective measures for important information assets and critical information infrastructure. The Information Security Promotion Team is responsible for managing security to ensure alignment with specific objectives and adherence to policy guidelines.

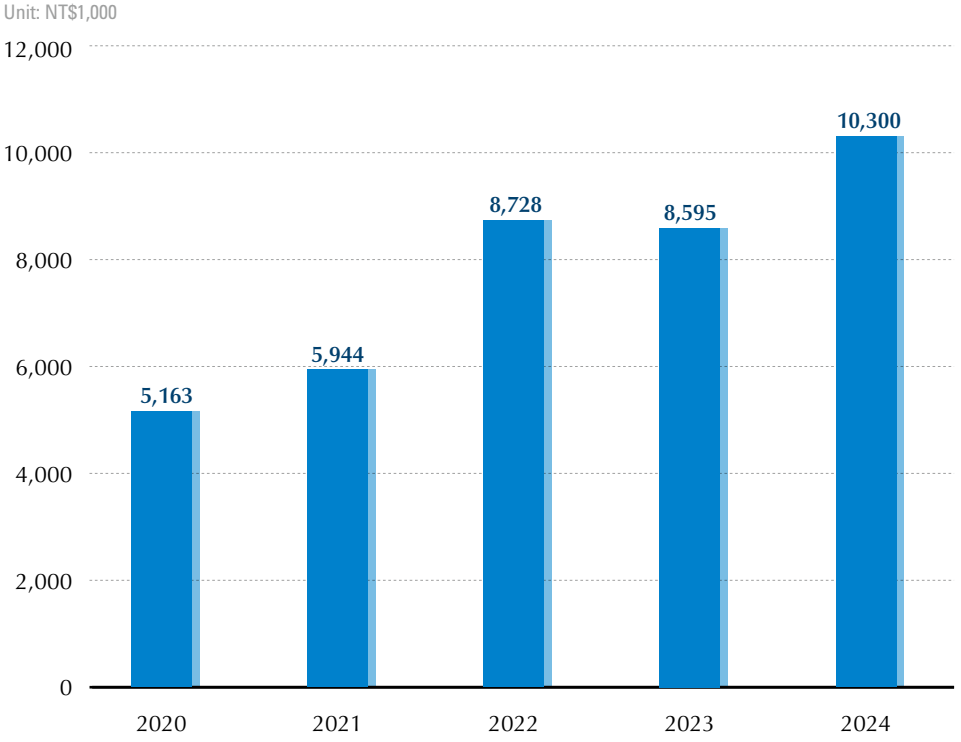
Information Security Management Plan

- Formulate an internal information audit plan and information security audit items. The Information Security Promotion Team will conduct self-assessments of information security internal controls and other related improvement measures.
- Members of the Information Security Promotion Team completed the 2024 information security audit in accordance with the Company's annual information audit plan and reported the results to the Board of Directors for review.
- Conduct annual information security inspection on information equipment, penetration testing, and vulnerability scanning operations. Oversee the implementation of information security monitoring service mechanisms at invested power plants. All invested power plants have completed the required tasks.
- Develop an Information Security Education and Training Plan annually. In 2024, we provided education and training on Social Engineering and Email Security, and on Personal Information Security Protection and Secure Use of Mobile Devices.
- Conduct two company-wide email social engineering security test drills annually at irregular intervals. After the drills, conduct educational sessions to enhance employees' awareness of social engineering and information security.
- Quarterly disaster recovery drills are conducted based on the Taipei data center's off-site backup plan, with all backup recovery tests completed successfully.
- Outsource to a security operations center (SOC) to establish endpoint detection and response services to strengthen information security protection.

Investment in Information Security Resources

Since 2020, the Company has consistently invested in equipment and resources related to information security management, demonstrating the management team's strong support for and emphasis on information security management. Expenditures for the past five years are shown in the chart below.

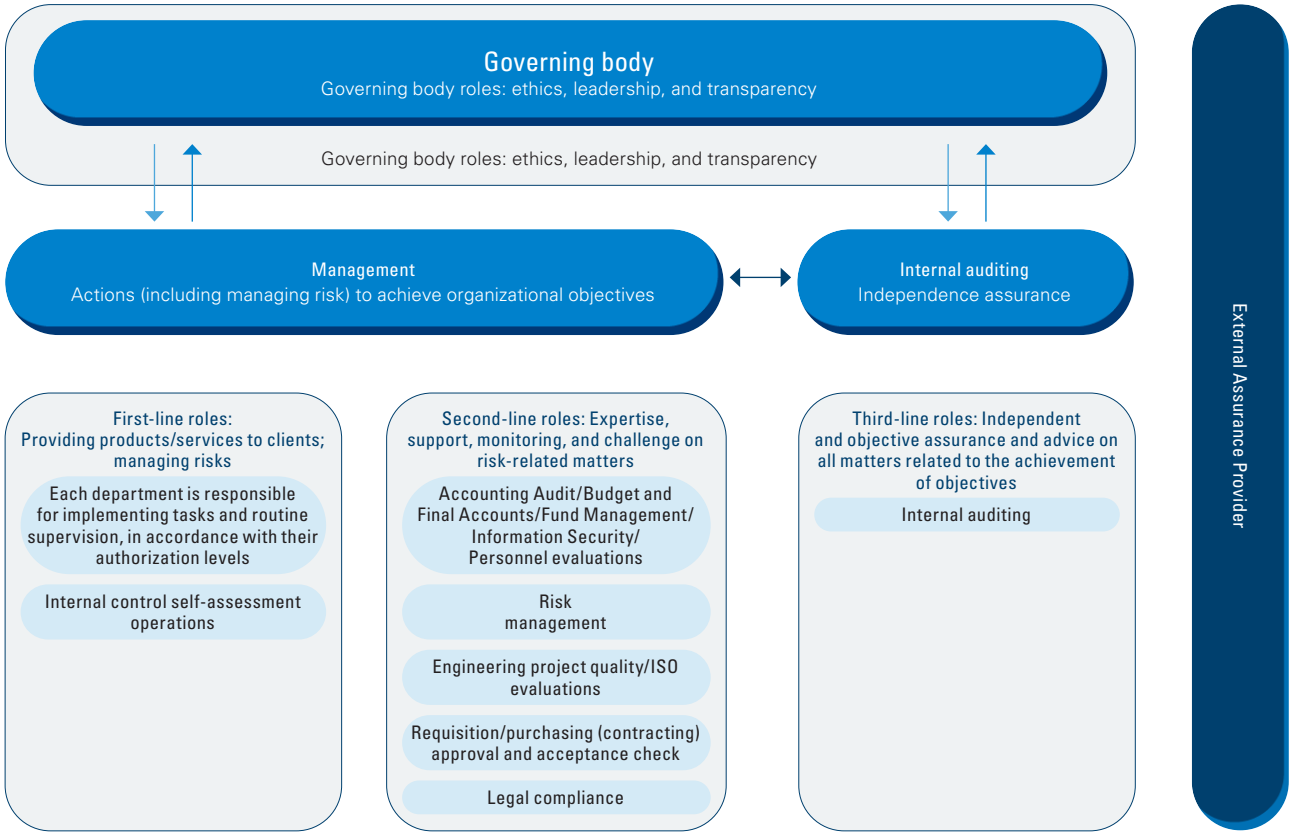
Information security-related expenditures over the past five years



1.3.3 Risk Control

Three Lines Model for Internal Control

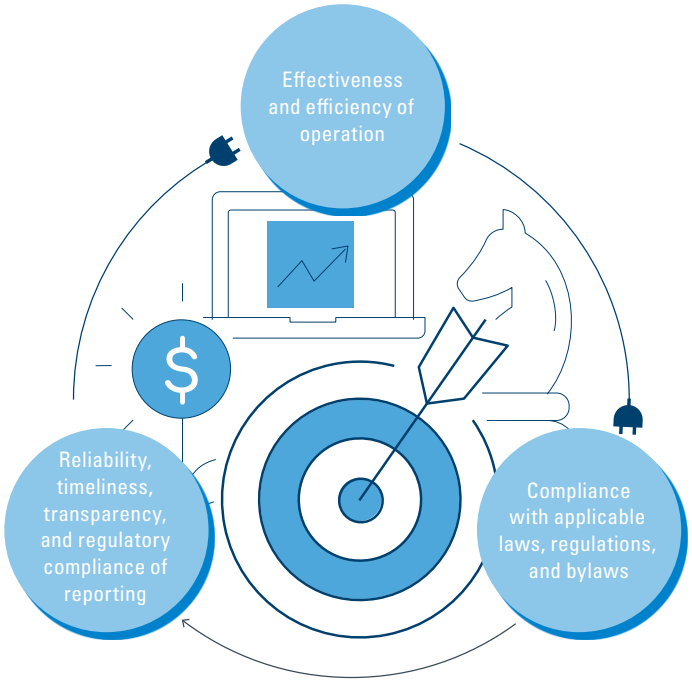
To effectively leverage the risk management functions of the internal control system, the Company has adopted the Three Lines model released by the Institute of Internal Auditors (IIA) in July 2020. The new internal control model is structured with the governing body, management, and internal audit, each performing their respective duties. Through collaboration, coordination, and communication, they work together to achieve the Company's goals.



KEY: ↑ Accountability, Reporting ↓ Delegation, Direction, Resources, Oversight ↔ Alignment, Communication, Coordination, Collaboration

Internal Control System Design and Implementation

To promote robust Company operations, the management department has completed the establishment of an internal control system suitable for the Company, in accordance with the Regulations Governing Establishment of Internal Control Systems by Public Companies and TCC's industrial characteristics, covering the five major elements such as control environment, risk assessment, control activities, information and communication, as well as monitoring activities. In addition, internal audit implementation rules and internal control self-assessment procedures are incorporated to ensure that the following three goals are achieved:



Regular Revisions of Internal Control Systems for the Company and Subsidiaries

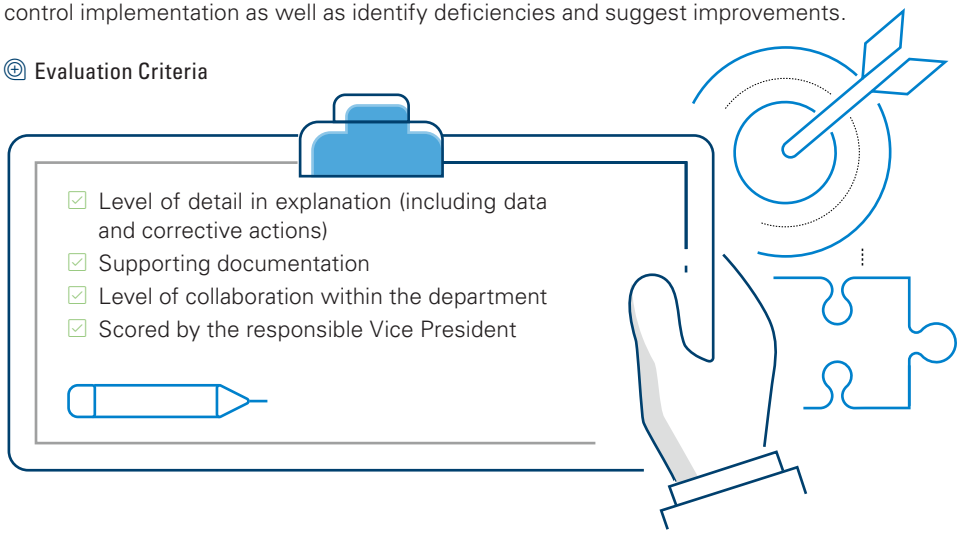
The Company revised its internal control system in 2024 to strengthen self-monitoring mechanism and respond promptly to changes in the external environment. This update aligns with the Financial Supervisory Commission's amendment to the Regulations Governing Establishment of Internal Control Systems by Public Companies on April 22, 2024, which requires listed companies to incorporate sustainability information management into their internal control systems and designate it as an audit item in the annual audit plan. Each department reviewed and updated internal control procedures based on the previous year's internal control self-assessment report, newly issued or revised internal regulations, and new regulatory requirements issued by competent authorities. Through these revisions, the Company seeks to internalize corporate governance and corporate social responsibility into its organizational culture, thereby achieving the goal of sustainable operation. Additionally, the Company's subsidiaries also regularly review changes in internal and external environments and legal regulations to complete revisions of their respective internal control systems.

Internal Control Self-assessment Implementation

Each November, the Company's Internal Audit Office initiates the annual internal control self-assessment process. All departments are required to assess the effectiveness of the design and implementation of internal control procedures item by item. The results are then reviewed by the Internal Audit Office. Departments use the outcomes of the annual self-assessment to conduct reviews and improvements, which also serve as a basis for revising the internal control system. In 2024, the Company's internal control self-assessment found no significant deficiencies.

To encourage continuous improvement and internalization of internal control practices, the Company has, since 2019, awarded the department with the most outstanding self-assessment performance. Departments are also encouraged to propose benefits of internal control implementation as well as identify deficiencies and suggest improvements.

Evaluation Criteria



Internal Audit Implementation

The Internal Audit Office carries out regular and special audits to assist the Board of Directors and Managers in inspecting and reviewing defects in the internal control systems, as well as measuring operational effectiveness and efficiency. Timely improvement recommendations are provided to ensure that the internal control system remains effective and serves as a key reference for revising the system.

The Internal Audit Office formulates its annual audit plan based on a comprehensive risk assessment. The Office conducts a thorough annual risk assessment, taking into account the Company's annual risk management plan, items of concern by the regulatory authorities, directors, and senior management, the feedback from audit operations, and items that have not been audited for a long period of time. Based on this evaluation, the office develops an audit plan for the following year, which is then submitted to the Audit Committee for review and approved by the Board of Directors. Through this approach, the Internal Audit Office ensures that both regular and project-based audits are responsive to actual needs. Since 2019, to verify the accuracy of disclosures in the sustainability report, the Internal Audit Office has performed internal assurance audits of the report. The results of the 2024 audit were submitted to the 12th Board of Directors at its 10th meeting on November 11.

Each audit report throughout the year has been submitted for review by the independent directors of the Audit Committee as required. No significant deficiencies were found this year. Recommendations for improvements are tracked by the Internal Audit Office until they have been addressed by the responsible departments. These recommendations are summarized and submitted to the Audit Committee and the Board of Directors for review in May and November of each year, after which the tracking is concluded.

50 items in the 2024 audit plan

No significant deficiencies were found

15 recommended improvements

As of December 31, 2024

9 improvements have been completed

6 items have been listed for tracking.

CHAPTER 02

Stable and Reliable Green Electricity Partner

Material Topics → Supply Stability and Reliability | Evaluation and Response to Electricity Policies | Renewable Energy

Goals

Operational reliability of Guan Tian Plant≥ 97.18%

Expand diversified power market and broaden O&M business opportunities

Respond to the global net-zero trend and evaluate the development of promising low-carbon energy technologies

Renewable Energy Development

Mid- to Long-Term Goal (by 2029)

Cumulative installed capacity of renewable energy investment reaches 376MW

Short-Term Goal (by 2025)

Renewable energy retailing reaches 211 GWh

Obtain the construction permit for a 25.2 MW onshore wind power project and the establishment permit for 12.8 MW

Obtain the establishment permit for a 45 MW solar photovoltaic energy project

2024 Performance

Guan Tian Plant

Customer satisfaction: 95.4

Annual operational reliability: 99.53%

Solar Photovoltaic Energy

Annual power generation exceeded 41.49 GWh

Initiated the 13.2 MW Wushantou Reservoir Floating Solar Photovoltaic energy Phase II project

Secured the 16.5 MW SPV and its 12 MW /35.95 MWh energy storage system for the Changbin solar energy project

Launched planning for the 32 MW aquavoltaic project

Green Electricity Retailing

Cumulative renewable energy retailing exceeded 600GWh

Wind Power

Annual power generation exceeded 110.8 GWh

Carried out O&M for 116 wind turbines

Sustainable Supply Chain

Received the 2024 Green Procurement Award

Green procurement reached NT$570 million

Corporate Social Responsibility Commitment signing rate: 95.2%

Self-assessment questionnaire response rate: 97.8%

2.1 New Directions for the Energy Transition SASB IF-EU-240a.4

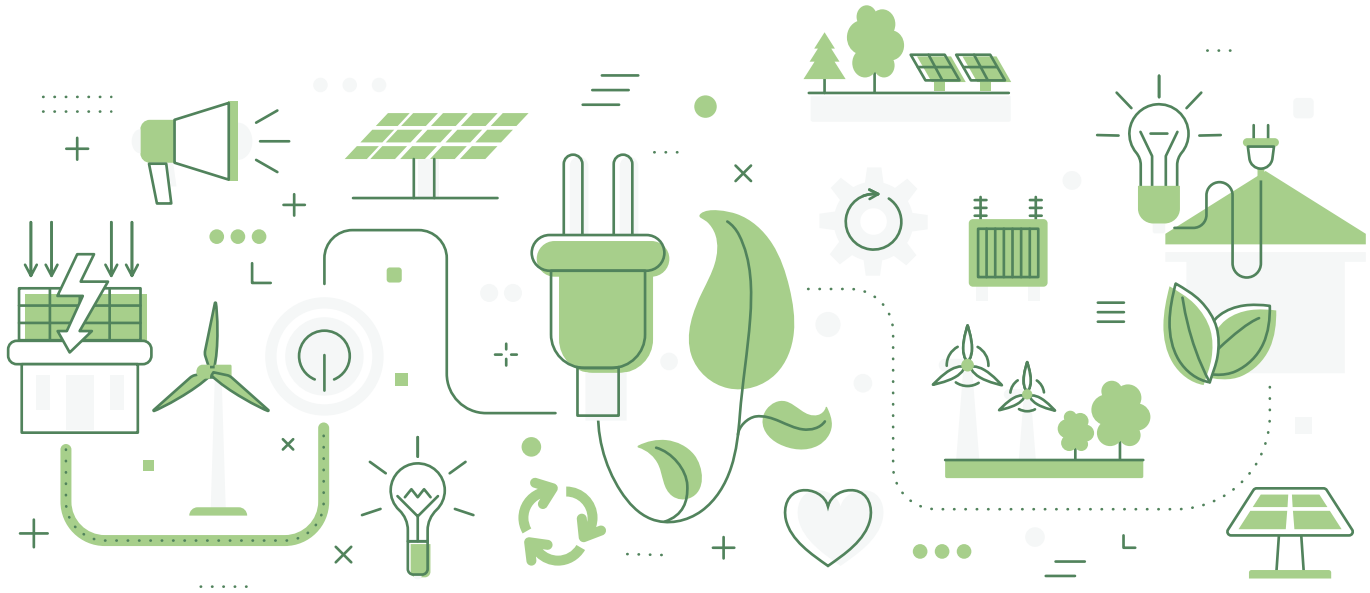
Domestic Policies and Markets

According to estimates by the Energy Administration of the Ministry of Economic Affairs, Taiwan's total electricity consumption is projected to grow at an average annual rate of 2.8% from 2024 to 2033, driven by national economic growth, policies promoting electric vehicles, and the AI boom fueling expansion in the tech sector. Amid rising electricity demand, Taiwan's energy transition is guided by the clean energy development principles of reducing coal-fired, increasing natural gas, promoting green energy, and achieving nuclear-free. In the short term, the focus is on achieving low carbon goals by increasing the share of natural gas and reducing coal usage, while also advancing research and development (R&D) of renewable energy technologies. The government aims for renewable energy to account for 20% of electricity generation by 2025, with solar photovoltaic energy already capable of meeting daytime peak demand, leading to a steady increase in the share of renewable energy. In the long term, the strategy involves deploying high-efficiency solar energy and wind power technologies to alleviate the dispatch pressure on thermal power units, complemented by the adoption of emerging technologies such as energy storage systems, carbon capture, utilization, and storage (CCUS) and hydrogen power generation. These efforts aim to push the domestic energy industry toward the Zero Carbon goals aligned with the Climate Change Response Act's national target of achieving net-zero emissions by 2050.

In line with the energy transition policy, independent gas-fired power plants continue to play a vital role in the energy market. Based on Taiwan Power Company's (Taipower) procurement announcements, gas-fired units scheduled to begin commercial operation between 2025 and 2029 have a total procurement capacity cap of approximately 10.34 GW, indicating substantial potential for updates, expansions, or new investments in independent gas-fired power plants.

In terms of renewable energy, the government has guaranteed investors a stable 20-year return through the feed-in tariff (FiT) mechanism. Following the 2017 amendment of the Electricity Act, Taiwan opened its green electricity trading market. Subsequent amendments to the Renewable Energy Development Act in 2020 introduced obligations for energy-intensive industries to install renewable energy, energy storage systems, or to use green electricity. Driven by global sustainability issues and net-zero targets, corporate demand for renewable energy has surged, spurring robust development in renewable-related businesses including investment and development, engineering project contracting, operation and maintenance (O&M), and renewable energy retailing. As of the end of 2024, Taiwan's installed renewable energy capacity reached 21.052 GW, accounting for 31.1% of the nation's total installed capacity, and the total green electricity wheeled by renewable-energy-based electricity retailing enterprise reached 2,030 GWh.

Due to the intermittent and unpredictable nature of renewable energy, the increase in grid-connected renewable energy will require gas-fired units to coordinate dispatch and more energy storage systems to balance supply and demand during peak and off-peak periods. In the electricity market, trading items are being gradually introduced to the Energy Trading Platform (ETP) in accordance with dispatch needs. In mid-2024, the demand curve mechanism was introduced for Energy-shifting with Dynamic Regulation Function Reserve (E-dReg) to mitigate severe price swings and ensure stable market development. By the end of 2024, the ETP's total participating capacity reached approximately 1,791 MW, representing an annual growth rate of over 94%. Demand for ancillary services is expected to continue increasing, creating more opportunities for applications and business development in resources such as self-use power generation equipment, energy storage, demand response, and virtual power plants (VPP).



TCC's Development Advantages/Disadvantages and Response Strategies

Advantages

- The policies of reducing coal-fired and increasing natural gas, along with air pollution improvement in winter, increase dispatch opportunities for our invested gas-fired power plants.
- The government's green energy policies and global carbon reduction trends support the development of the Company's renewable energy business.
- The high technical difficulty of developing large-scale projects gives the Company a competitive advantage due to our expertise in electricity.
- The increasing activity of the ETP for ancillary services and the number of products will benefit the Company's resource investment and participation.
- The increasing demand for offshore wind power O&M and the government's policy to promote the localization of the domestic wind industry will benefit the development of O&M business.
- Combining AI technology with professional O&M techniques will enhance the efficiency of renewable energy O&M work, reduce costs, and minimize misjudgments.
- Historical drone inspection image data can serve as a big data foundation for developing AI-based automated diagnostics systems.
- The business scope includes investment and development of energy projects, engineering and construction, O&M, green electricity retailing, and ETP trading, a fully integrated one-stop service.

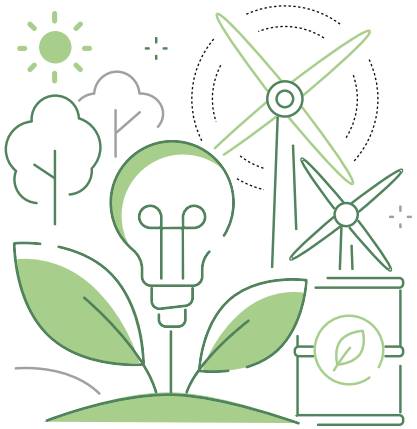
Disadvantages

- The gradual increase in grid-connected renewable energy affects the dispatch patterns of invested gas-fired power plants, resulting in changes to their start-up/shutdown frequency or full load ratios, which impacts power generation efficiency.
- The future direction of the invested gas-fired power plants is uncertain due to the lack of confirmed extension plans for power purchase agreements (PPAs) after their expiration.
- Large fluctuations in international fuel prices increase the operational risks for the invested gas-fired power plants and cogeneration plants.
- The introduction of the electricity carbon emission factor into the new time-of-use formula for cogeneration surplus electricity pricing, combined with stricter environmental regulations, carbon fee costs, and continuous investment in pollution control equipment, all increase the operating costs of cogeneration plants.
- Domestic and international companies continue to enter the electric power sector through renewable energy investment, green electricity retailing, and energy storage systems, leading to intensified competition.
- Growing local opposition and development resistance, along with lengthy regulatory review processes, delay the project timelines for gas-fired power plants, renewable energy projects, and energy storage systems.

Response strategies

1. Continuously assess the supply and demand potential of the energy storage market, develop the storage leasing business model, and carefully select the optimal market entry timing.
2. Integrate the Group's renewable energy resources and electric power expertise to provide customers with diverse and reliable green electricity services.
3. Actively seek multiple communication channels to encourage authorities to support and advance the establishment of power plants.
4. In view of future electricity market development, continue to cultivate gas-fired independent power producers and prudently assess expansion opportunities under manageable risk.
5. Analyze potential scenarios for future decommissioning of power plants in advance to ensure timely responses to changes in government policies.
6. Closely monitor price fluctuations in the energy and foreign exchange markets, and evaluate hedging strategies to mitigate potential risks.
7. Stay informed of Taipower's grid capacity and maintain close communication, ensuring that risk management is effectively implemented based on a sound financial structure.
8. To enhance the profitability of the Guan Tian Cogeneration Plant, we actively develop steam users and evaluate the cost-effectiveness of surplus electricity retailing and electricity market participation. Additionally, align with carbon fee policies and voluntary reduction mechanisms, while upgrading environmental and plant equipment, transitioning the plant towards a low-carbon and integrated energy cogeneration model.

2.2 A Reliable Green Electricity Expert



With the global emphasis on net zero and sustainability, renewable energy has become a focal point for energy development worldwide. To achieve net-zero emissions, the demand for green electricity across industries has been growing continuously. In response, Taiwan is expanding deployment of renewable energy through government promotion. TCC is fully committed to developing renewable energy, focusing on environmental protection, sustainability, and energy conservation, and becoming the first company in Taiwan to offer comprehensive services that include renewable energy investment and development, engineering project contracting, O&M, and electricity retailing. In terms of investment and development, TCC is fully engaged in the development of solar photovoltaic energy, wind power, and geothermal power projects. For engineering project contracting, our subsidiary Star Energy is actively involved in EPC projects for renewable energy, energy storage systems, substations, and power transmission and distribution lines. In December 2024, we secured the civil EPC contract for the Nangang Primary Substation Reconstruction Project in alignment with Taipower's indoor substation policy, incorporating precast construction methods to shorten the construction period and reduce construction waste, thereby contributing to net-zero and carbon reduction goals.

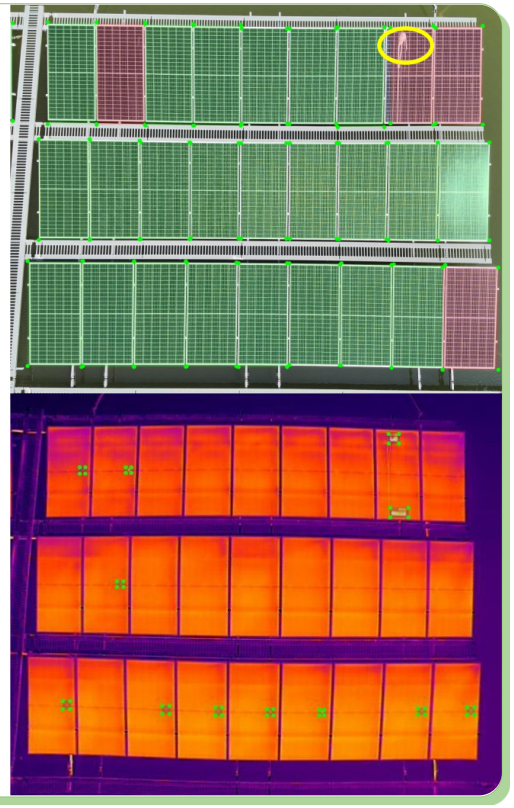
In addition, since TCC's subsidiary TCC Green Energy began green electricity retailing in 2020, it has achieved steady annual growth in green electricity retailing. In 2024, total sold green electricity exceeded 170 GWh, with a cumulative total surpassing 600 GWh by the end of the year, reducing carbon emissions by over 300,000 metric tons. In the area of ancillary services, the Company achieved a bidding success rate of 100% in 2024.

Digital Transformation for Green Electricity Services

With the development of emerging technologies such as big data, AI, VR, and AR, the application of digital technology can significantly improve existing business processes, enhance operational efficiency, save time and labor, and reduce human error. In terms of O&M, the Company utilizes drone technology for solar photovoltaic project site inspections. Aerial inspections of solar modules are conducted using RGB and IR imaging, which can detect module damage or thermal anomalies in advance. Maintenance personnel then review the images in real time to identify the causes and proceed with necessary repairs, significantly reducing the cost of manual inspections. Additionally, real-time kinematic (RTK) positioning systems are being implemented at different solar photovoltaic project sites to accurately locate faulty modules, greatly shortening inspection time and reducing labor requirements. For wind power projects, drones are used to capture images of areas inaccessible to personnel, such as blades and nacelles. This enables monitoring equipment conditions and preventive maintenance to ensure stable turbine operation.

In addition to the aforementioned application in O&M tasks, a real-time monitoring system is to be implemented. When alerted, the system will provide detailed information on potential issues and damaged parts, and assess the components that may need replacement. This approach aims to reduce the risk of human error in judgment and minimize the chances of bringing incorrect materials. The data accessed by the monitoring center can also be combined with environmental and meteorological information as an important reference for predicting power generation and dispatching electricity in the future. This will be complemented by an upgrade on the renewable energy retailing simulation matching model and the integration of an electronic billing system for green electricity users, digitally optimize the development of renewable energy generation and retailing information. Additionally, augmented reality (AR) technology will be introduced and integrated into substation O&M work, transitioning from the old manual paper-based meter reading method to digital imaging and automatic logging. This system will simultaneously display potential abnormalities and the corresponding solutions, enhancing operational efficiency and performance.

In the area of green electricity retailing, we have developed a renewable energy billing system that significantly reduces monthly billing time and manual input errors. Furthermore, the existing renewable energy retailing matching simulation system is being upgraded to improve load analysis and optimization of green electricity wheeling at the user end. These system enhancements aim to improve operational efficiency and provide customers with a more comprehensive and seamless service experience.



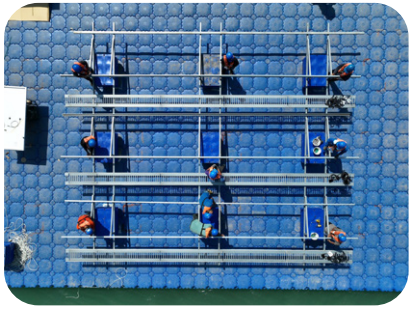
Module anomaly (soiling)

Module anomaly (hot spot)

2.2.1 Solar Energy

TCC possesses vertically integrated expertise in solar photovoltaic projects, covering all stages from project planning, construction and installation to post-construction O&M. We have engaged in a variety of solar photovoltaic projects, including rooftop, floating, and ground-mounted solar photovoltaic projects.

The TCC Group developed and constructed the Wushantou Reservoir floating solar photovoltaic project, with an installed capacity of 13.7 MW. In 2024, the total power generation exceeded 19.1 GWh. To ensure water quality safety, a third-party organization was commissioned to perform water sampling and testing both within and outside the project site's water areas. All test results met the required standards. In addition, the photovoltaic systems undergo regular monitoring and maintenance. The Wushantou solar photovoltaic site is maintained by Star Energy. The site utilizes a real-time monitoring and data analysis system to implement a comprehensive preventive inspection and maintenance mechanism, minimizing generation losses caused by unexpected equipment failures and ensuring stable and safe plant operation. These efforts also help maximize the system's power generation efficiency. In February 2023, we also obtained a development permit for the Wushantou Reservoir Floating Solar Photovoltaic Phase II project, with a planned installed capacity of approximately 13.2 MW. The project entered the planning and permit application stage in 2024. Upon commencement of commercial operation, it is expected to increase annual power generation by approximately 18 GWh.



Aerial view of the module assembly area

Wushantou reservoir floating solar photovoltaic project

To address the issue of insufficient feeder capacity in solar photovoltaic grid-connected hot zones, TCC Group has aligned with national policies by investing in and establishing joint booster stations for solar photovoltaic projects. In Cigu District, Tainan City, TCC is promoting the installation of a shared substation with a grid connection capacity of 240 MW, of which 120 MW was connected to the grid and began commercial operation in November 2023. This effectively resolves the grid connection issues in photovoltaic hot zones, continuously supporting Taiwan's renewable energy development goals.

Additionally, in October 2024, TCC's subsidiary Star Energy was awarded the Taipower's Changbin solar-plus-storage equipment procurement and installation project. The project involves expanding the existing Changbin solar photovoltaic site with approximately 16.5 MW of new solar photovoltaic capacity and 12 MW/35.95 MWh of energy storage systems. The project is expected to be completed by 2027.

Changbin Solar-Plus-Storage Project site

In addition to ensuring the operation of the grid-connected solar photovoltaic projects through professional O&M, the Company is also actively expanding into new solar photovoltaic projects, such as aquavoltaic (fishery and electricity symbiosis) and agrivoltaic (agriculture and electricity symbiosis) projects that better utilize land value. TCC's subsidiary, Hamaguri, responded to the government's aquavoltaic policy, and has been promoting the development of aquavoltaic projects in fishponds within the designated area in Changhua County. With a planned installed capacity of approximately 32 MW, the project is currently undergoing its electricity establishment application. With 30 years of expertise in the power industry, the Company collaborates with professional aquaculture teams and integrated local aquaculture practices to create a win-win situation that balances local development, green energy, aquaculture, and ecological conservation. Moving forward with solar energy development, we will adhere to the principles of dual land use, local co-prosperity, and ecological coexistence, taking a step toward sustainable energy and sustainable communities.

Aerial view of the fishponds

2.2.2 Wind Power

In terms of onshore wind power, we have invested in Miaoli Wind, which includes Zhunan Wind Farm and Dapeng Wind Farm. The total installed capacity of the onshore wind turbines is 49.8 MW, and the power generation was over 80 GWh in 2024. Considering that the turbines have been in operation for over 18 years, we have initiated the procedures for a wind turbine renovation and reconstruction project to improve operational efficiency and continue utilizing the excellent wind resources in Miaoli. The project targets an installed capacity of approximately 88.2 MW, with an estimated annual output of 220 GWh of green energy. Star Wind has set up onshore wind turbines with a total installed capacity of 10.35 MW in Fangyuan, Changhua, capable of retailing approximately 28.5 GWh of green energy annually. Considering the area's favorable wind conditions, the Company is planning to build 8 new turbines with a total capacity of approximately 33.6 MW, generating about 84 GWh of green energy annually for the domestic market. Additionally, in collaboration with local enterprises in Changhua, Star Wind is planning to develop onshore wind power at Yongxing tidal flat in Fangyuan, further expanding the domestic green energy supply.

Taiwan is densely populated with limited areas, special attention to environmental impacts is required when developing onshore wind power. We are committed to promoting renewable energy while also protecting the local environment. During the environmental impact assessment process, we examine the impacts on aspects such as the environment, ecology, landscape, socioeconomics, traffic as well as culture, and propose environmental protection measures. For ecological aspects, we formulate avoidance, minimization, mitigation, and compensation measures, including reducing the scope and number of turbines, increasing monitoring frequency combined with mitigation mechanisms, and conducting conservation of nearby habitats to protect the local ecological environment. Additionally, for all levels of plans and major construction projects related to wind power, we conduct impact risk assessment on surrounding areas, carefully planning in the early stages to minimize local impacts as much as possible.

Moreover, Star Energy had an outstanding performance in wind power O&M projects in 2024. Aside from continuing to secure a 5-year O&M contract for 86 wind turbines from Taipower, Star Energy also undertook warranty O&M work for 2 onshore wind turbines of Taiwan Cement Corporation Green Energy. Including the wind turbines at the Group's own project sites, Star Energy is responsible for the O&M of a total of 116 wind turbines domestically. This makes Star Energy the most experienced and professional wind turbine O&M company in Taiwan, and its expertise and enthusiastic service are widely praised by customers.

In addition, to align ourselves with the government's promotion of renewable energy policies and to participate in the future O&M of offshore wind farms, we have undertaken the construction of the inshore substation for the Ørsted Offshore Wind Farm project (CHW2204 project), and established a Renewable Energy O&M Center in the Changhua Coastal Industrial Park as well. The center can provide more comprehensive renewable energy O&M services, ensuring the localization of O&M technologies and expanding business opportunities in this sector.

Wind turbines of Star Wind

Wind turbines of Miaoli Wind

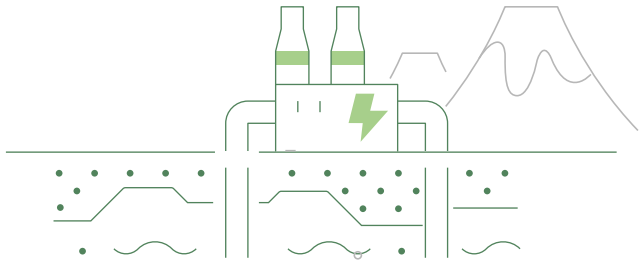
2.2.3 Geothermal Power

Datun volcano geothermal power development

On October 1, 2024, the Company signed a memorandum of understanding (MOU) for the Datun Mountain geothermal collaboration with Taipower, international geothermal developer Baseload Power Taiwan, and geothermal technology services provider GreenFire Energy. This collaboration aims to establish a multinational geothermal development team to jointly explore geothermal energy in the Datun volcanic area of northern Taiwan.

According to assessments by the Geological Survey and Mining Management Agency of the Ministry of Economic Affairs, the Datun Volcano Group holds approximately 20% of Taiwan's geothermal potential and has accumulated relatively comprehensive regional geological exploration data. Consequently, the first phase of this partnership designates the Datun Mountain region as the primary development target.

Under the terms of the cooperation, the development team will initiate different stages of work, including analysis of existing geological data, 3G (geology, geochemistry, and geophysics) exploration, establishment of a conceptual model and identification of drilling targets, as well as actual drilling and testing. The project will be guided by the principle of "Sustainable Circulation and Effective Maintenance of Geothermal Reservoirs," with a focus on the adoption of an Advanced Geothermal System (AGS), a "heat extraction without water extraction" approach. By leveraging private, government and international cooperation, the project seeks to accelerate geothermal deployment, support regional energy self-sufficiency, and contribute to achieving Taiwan's 2050 net-zero emissions goal.

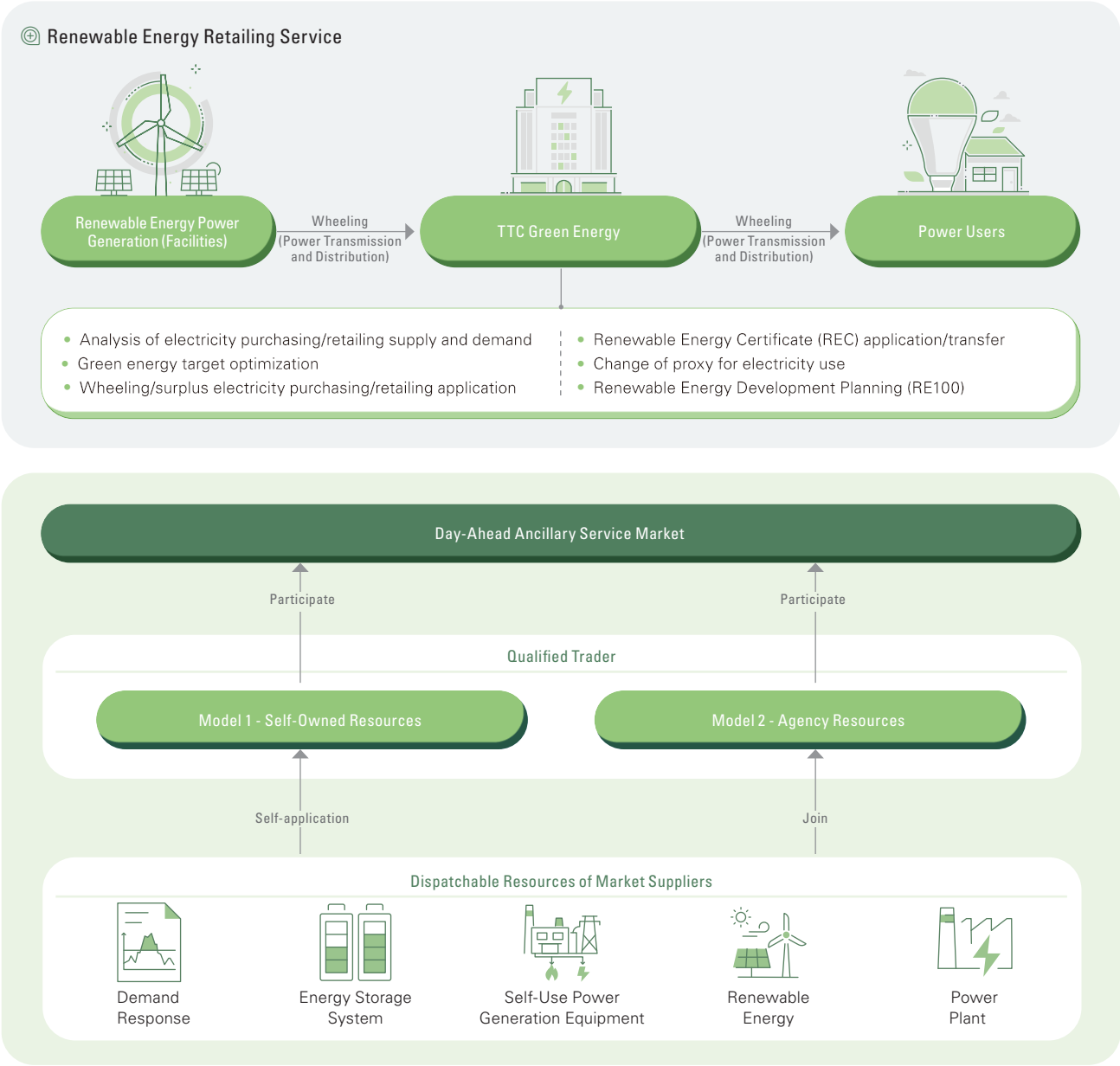


2.2.4 Integrating the Renewable Energy Value Chain

Combining the Group's expertise in electricity and the insights that we have developed through long-term experience in the energy market, TCC analyzes the energy consumption patterns of different customers, and provides the most appropriate green electricity plan to maximize profits. Our customers range from foundations to industries in semiconductor, financial, communication, consulting service, electronics, retail in clothing, steel manufacturing, medical supplies manufacturing and plastic products manufacturing. As of the end of 2024, cumulative electricity retailing has exceeded 600 GWh.

To maintain the safe and stable operation of the power system, or to restore the system to normal after an accident, Taipower has actively encouraged electricity enterprises and independent power producers to participate in ancillary services, and has established the Energy Trading Platform (ETP), as private enterprises are able to bid openly on the ETP. In view of this, TCC has obtained 11 ETP Expertise Certificates. In April 2022, TCC utilized our Guan Tian Plant as an operating resource and officially participated in the ancillary service market for supplementary reserve bidding. TCC reviews pricing strategies with consultants on a regular basis, to improve the bidding success rate and dispatch implementation rate. In 2024, our actual bidding success rate was 100%.

In addition to utilizing internal resources and facilities, the Group is also actively negotiating the introduction of external resources (e.g. self-use power generation equipment, qualified cogeneration plants, energy storage systems, and more). In 2024, the Group launched energy storage leasing business models, signing MOUs for large-scale energy storage system leasing and operation services. These initiatives aim to strengthen the expansion of the Group's future renewable energy value chain.



2.3 High Quality Customer Service

Attentiveness, Diligence, an Expert Team, and Enthusiastic Service

Since TCC was established, we have adhered to our quality policy of "attentiveness, diligence, an expert team, and enthusiastic service," and strictly require our employees to follow the quality management system, improve the quality of products and project services, and constantly strive for excellence. Externally, the Company strengthens our communication with customers and makes customer needs our guiding principle, achieving the highest quality customer service.

TCC's main products and services are steam and electricity from cogeneration plants, as well as vertically integrated services related to the power industry, including gas-fired power plants, renewable energy, and transmission and transformation projects. These services cover investment and development, engineering project construction, and O&M, all of which follow the P-D-C-A (plan-do-check-act) cycle. TCC's headquarters, the Guan Tian Plant, and Star Energy have all obtained ISO 9001:2015 quality management system certification, ensuring highly reliable products and engineering service quality for customers, and demonstrating our commitment to product and service quality.

2.3.1 Stable Power Supply GRI 2-6 SASB IF-EU-550a.2 , IF-EU-000.D

With the rise of emerging technologies and the expansion of the semiconductor industry, nighttime peak load demand is projected to grow by approximately 2.5% between 2024 and 2028. Due to the highly intermittent nature of renewable energy generation, gas-fired power plants and cogeneration plants will continue to play a critical role in maintaining grid stability.

TCC's Guan Tian Plant was invested in, constructed, and maintained by TCC. It began commercial operations in 2000, and has been providing stable power supply for over 20 years. The plant serves eight customers (including steam users) in the Guantian Industrial Park and continues to develop new customers. In addition to improving energy efficiency in the area, the plant also helps alleviate regional power supply loads.

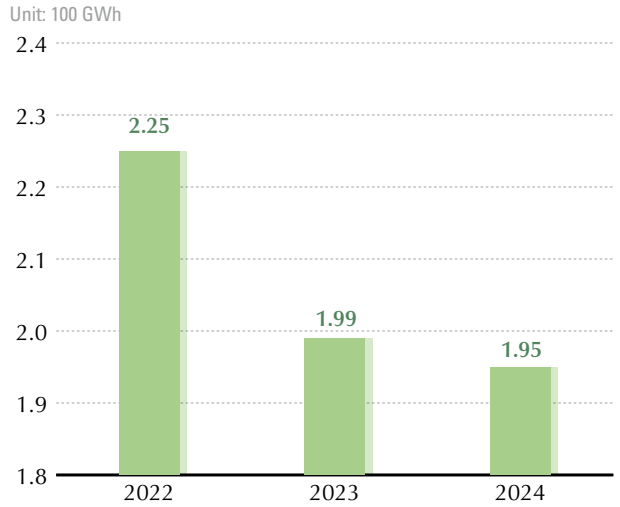
Utilizing high-efficiency and low-pollution power generation methods to provide stable power supply and serve electricity users has been TCC's mission since the Company was established. The list below shows cogeneration plants and gas-fired power plants invested in by TCC, or with TCC as the largest shareholder.

Name	Installed capacity	Type
Guan Tian Cogeneration Plant	48MW	Coal-fired circulating fluidized bed boiler and steam turbine generator unit
Chang Bin Gas-Fired Power Plant of Star Energy Power	507MW	Gas-fired multi-shaft combined cycle generator, 1 unit

Name	Installed capacity	Type
Fong Der Gas-Fired Power Plant of Sun Ba Power	1,014MW	Gas-fired multi-shaft combined cycle generator, 2 units
Star Buck Gas-Fired Power Plant of Star Buck Power	549MW	Gas-fired multi-shaft combined cycle generator, 1 unit

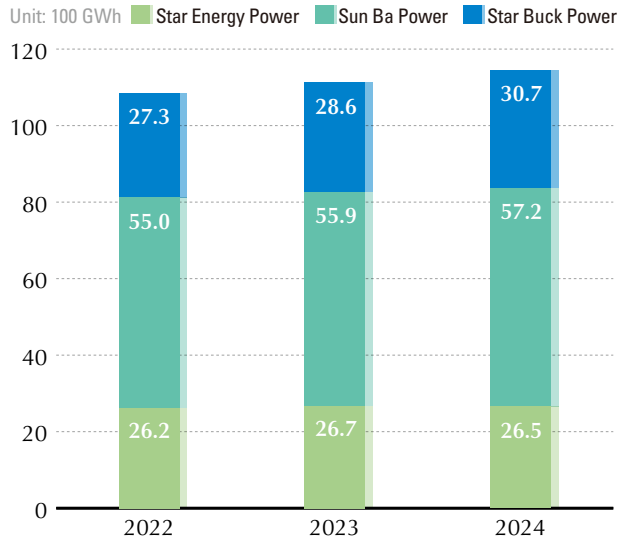
In 2024, three gas-fired power plants invested by TCC sold a total of approximately 11.44 TWh of electricity to Taipower. The amount of electricity sold has increased and reached new heights every year. The partial replacement of some coal-fired power generation units by gas-fired power generation units could reduce total domestic air pollution emissions, demonstrating the efforts and achievements of TCC Group to stabilize domestic power supply and provide low-carbon energy.

Electricity Sold by Guan Tian Plant



Note: In 2024, due to continued high coal procurement prices, insufficient delivery volumes of alternative fuels, and feed-in tariffs for cogenerated power during off-peak hours being lower than operating costs, the plant operated at low load during off-peak hours. As a result, total annual electricity sold remained roughly the same as in 2023.

Electricity Sold by 3 Invested IPPs



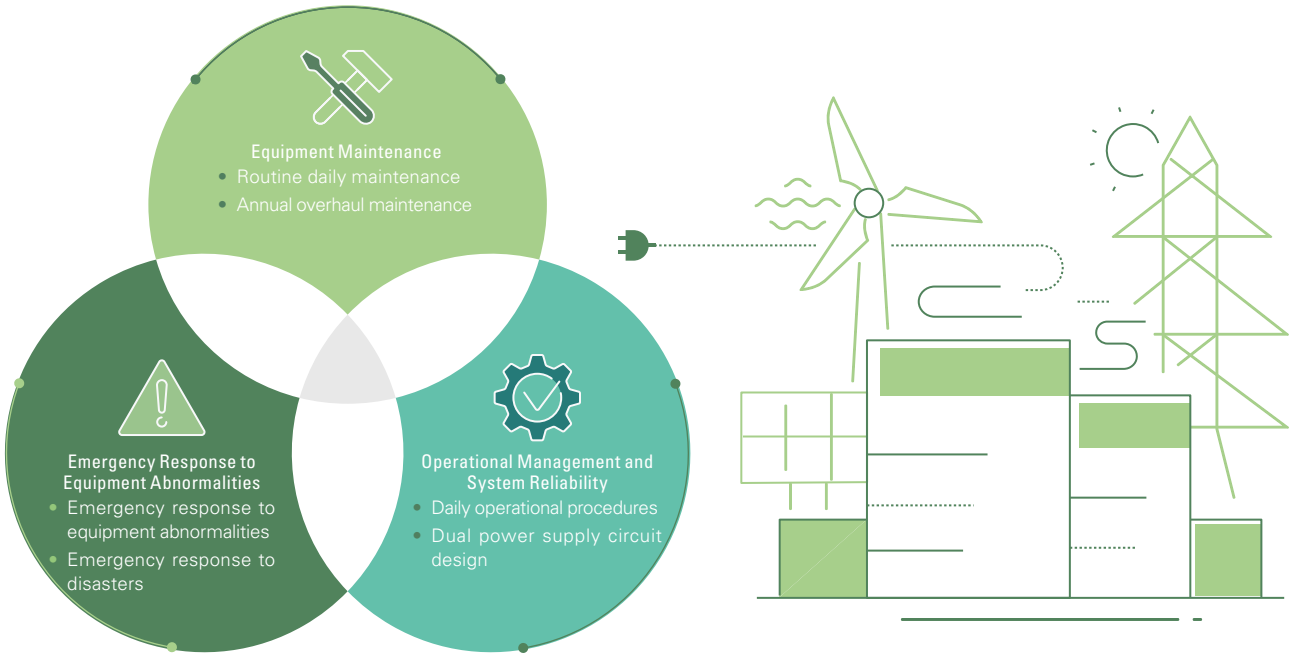
Operational Reliability

Stable operation is the primary concern of power plants. Reported incidents of power supply shortage in the past were often caused by failures of boiler tube or unit malfunctions in the power plant that led to emergency stop, resulting in the reduction of estimated percent operating reserve by 2–3%. The power supply signal would change from yellow to orange, or even to red light alert, symbolizing the warning of power rationing. This indicated that under the condition of a tight power supply, the operation status of any unit may affect the overall power supply in Taiwan.

To maintain stable power and steam supply for customers, the Guan Tian Plant has a management mechanism based on the following three aspects: maintenance, emergency response, as well as operation and system design. All aspects have detailed work procedures and standardized quality manuals. In addition, employee training and drills are carried out regularly to ensure that all personnel in the plant are familiar with and follow procedures.

In 2024, the operational reliability management mechanism at the Guan Tian Plant was highly effective, demonstrating excellent operational technology and unit stability. The plant's operational reliability rate reached 99.53%, with the only exception being a temporary shutdown due to equipment failure. In response, the plant further strengthened its preventive maintenance measures and continued to optimize management processes to enhance operational stability and efficiency.

Guan Tian Plant operation reliability management mechanism



2024

Operational reliability
99.53%

Actual operating hours in 2024:
8,201.2 hours

Commercial operations starting Dec. 2000, as of end of 2024

Cumulative operating hours:
197,200 hours

Average annual normal operating hours:
8,200+ hours
(minus 20 days of annual overhaul)

No
equipment failures
over the past several years

Average Power Outage Duration

A power supplier must be able to provide continuous and uninterrupted power upon demand. If a trip or failure does occur, it must be able to deal with the problem quickly and restore the power supply. The average duration of power outage refers to the average duration of service outage experienced by users of each power plant.

	TCC (Guan Tian Plant)	Star Energy Power	Sun Ba Power	Star Buck Power	Total
2024					
Number of users	3	1	1	1	6
Total duration of power outage for all users (minutes)	0	288	214	2,285	2,787
Average duration of power outage per user (minutes)	0	288	214	2,285	465
2023					
Number of users	4	1	1	1	7
Total duration of power outage for all users (minutes)	0	1,112	0	903	2,015
Average duration of power outage per user (minutes)	0	1,112	0	903	288
2022					
Number of users	4	1	1	1	7
Total duration of power outage for all users (minutes)	0	0	19	236	255
Average duration of power outage per user (minutes)	0	0	19	236	36

Note: For Star Buck Power in 2022 and 2023, the total duration of power outage from all users and the average duration of power outage per user have been restated to align with the calculation method used by other power plants, which is to measure the duration from the start of the outage to the restoration of power.

Power Outage Frequency

The average power outage frequency refers to the average number of service outages experienced by users of each power plant.

	TCC (Guan Tian Plant)	Star Energy Power	Sun Ba Power	Star Buck Power	Total
2024					
Number of users	3	1	1	1	6
Total power outage events for all users (number)	0	1	1	4	6
Average power outage frequency per user (number/user)	0	1	1	4	1
2023					
Number of users	4	1	1	1	7
Total power outage events for all users (number)	0	4	0	2	6
Average power outage frequency per user (number/user)	0	4	0	2	1
2022					
Number of users	4	1	1	1	7
Total power outage events for all users (number)	0	0	4	1	5
Average power outage frequency per user (number/user)	0	0	4	1	1

Note 1: The average power outage frequency per user is the total number of power outage events with all users divided by the number of users, rounded to the nearest whole number.

Note 2: For Star Buck Power in 2022 and 2023, the total number of power outage events and the power outage frequency user have been restated to align with the calculation method used by other power plants, which is to count the number of outage events.

	TCC (Guan Tian Plant)	Star Energy Power	Sun Ba Power	Star Buck Power
2024				
System Average Interruption Duration Index (SAIDI)	0	288	214	2,285
System Average Interruption Frequency Index (SAIFI)	0	1	1	1
Customer Average Interruption Duration Index (CAIDI)	0	288	214	2,285

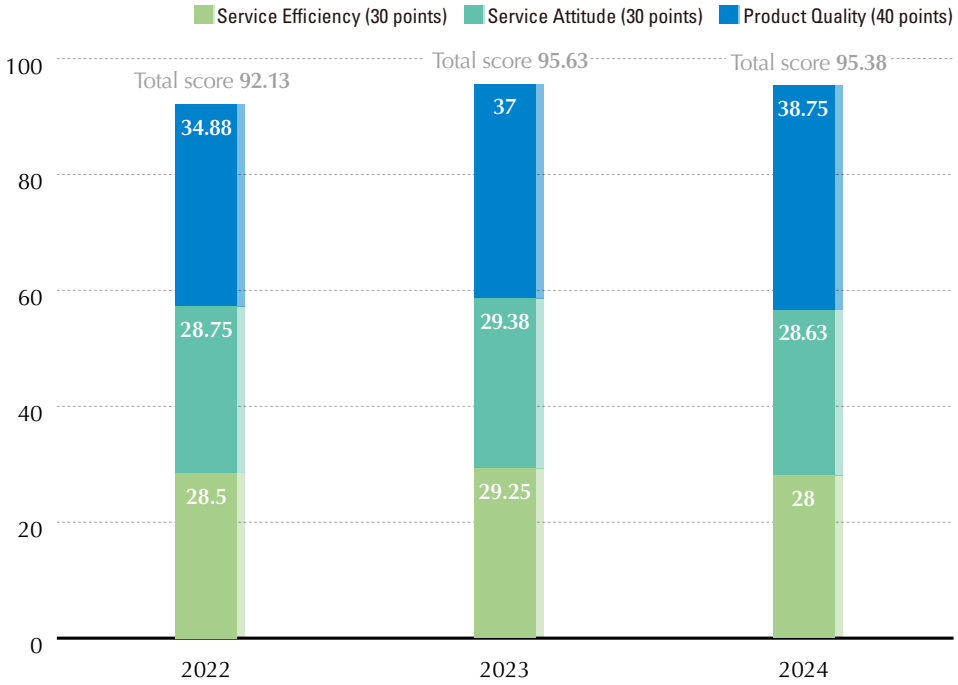
2.3.2 Meeting Customer Needs

Meeting customer needs and continuous improvement have always been the core values of TCC's operations. Our operational objective is to create maximum customer value, making customer demands and satisfaction the key performance indicators that we monitor actively.

Customer Satisfaction

TCC values customer feedback and has established operating procedure for both satisfaction survey and complaint handling. Through annual satisfaction surveys, we ascertain customer opinions and actual needs. These insights are reviewed to implement improvements and enhance service quality. On the other hand, a Customer Complaint Handling Procedure is also in place, where the designated department handles complaints by analyzing causes, formulating response measures, and replying to customers with the outcome, ensuring that customer feedback is both heard and appropriately addressed to improve overall satisfaction

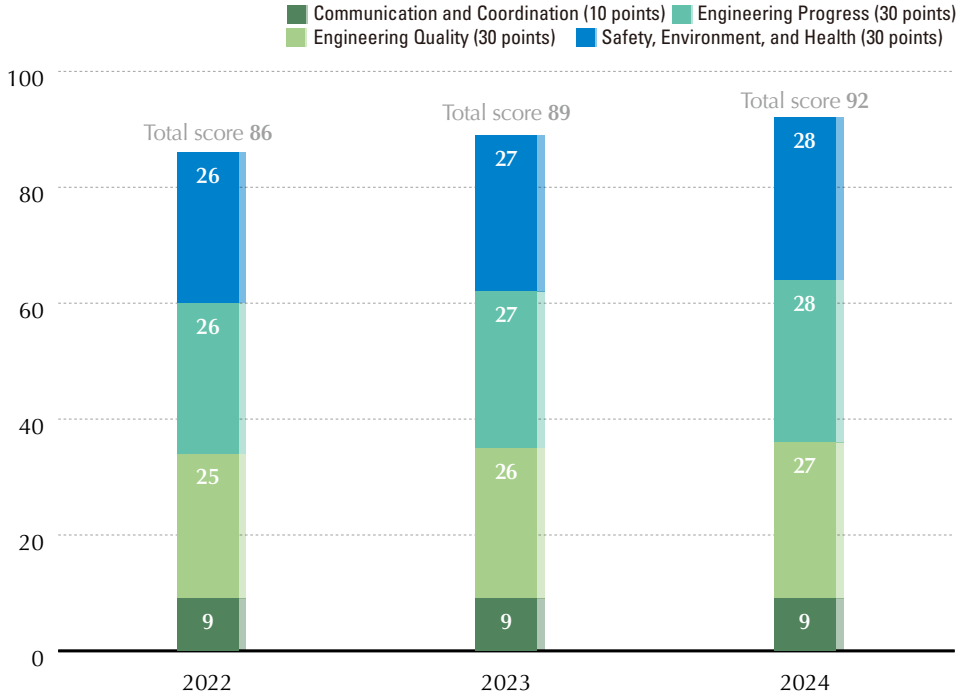
Customer satisfaction survey results for Guan Tian Plant, past three years



Note: The chart above represents the average satisfaction score from eight customers over the past three years.

In 2024, TCC's subsidiary Star Energy received high recognition from customers for engineering quality, communication and coordination, and service attitude. It strictly adheres to contractual requirements regarding customer data and privacy. Moving forward, we will continue to uphold the highest standards of engineering quality to achieve our three objectives of customer satisfaction, corporate sustainability, and green development.

Customer satisfaction survey results for Star Energy, past three years



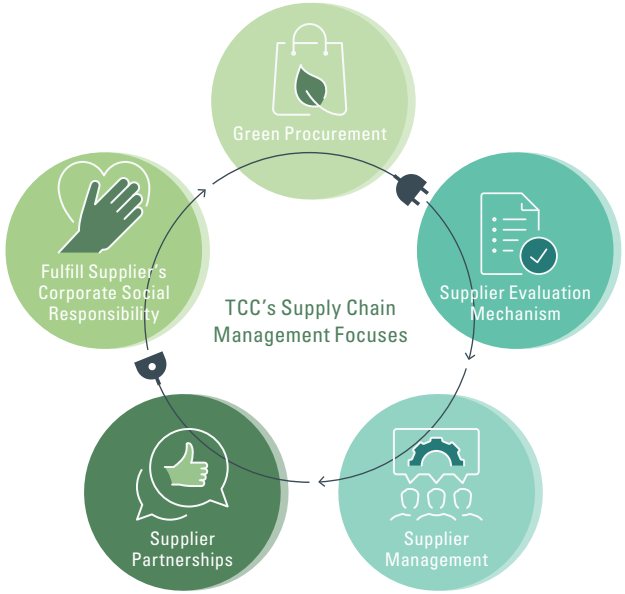
Note: The chart above represents the average customer satisfaction scores from 9, 20, and 12 customers in 2022, 2023, and 2024, respectively.

Customer privacy and complaint handling

While proactively improving customer service, TCC also places high importance on customer privacy and intellectual property rights. All personnel strictly follow rules of confidentiality. In 2024, TCC had no violations of customer privacy and no incidents involving customer data loss resulting in harm to customer rights. There were also no customer complaints filed.

2.4 A Sustainable Supply Chain

To build a sustainable supply chain, TCC maintains close relationships with our suppliers, aiming for mutual growth and creating win–win situations. Since 2016, we have updated our management practices annually, leveraging our influence to encourage suppliers to prioritize corporate social responsibility, implement green procurement initiatives, align with international sustainability trends, and drive a virtuous cycle within the supply chain to create a green supply chain ecosystem. Furthermore, TCC adopts a supply chain management approach that emphasizes quality and risk control. We carefully select partners, uphold the principles of integrity, honesty, commitment and responsibility, and establish a comprehensive Supplier Management Evaluation Mechanism.

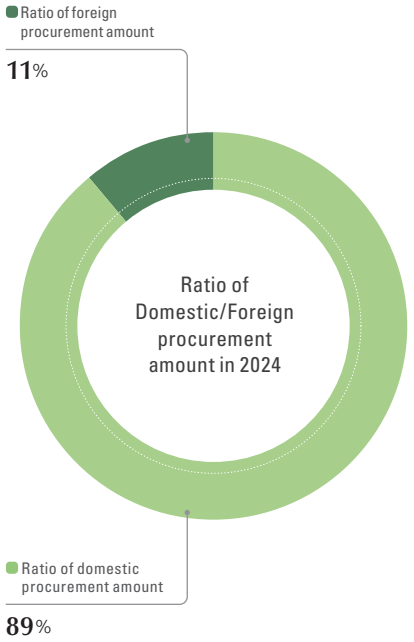


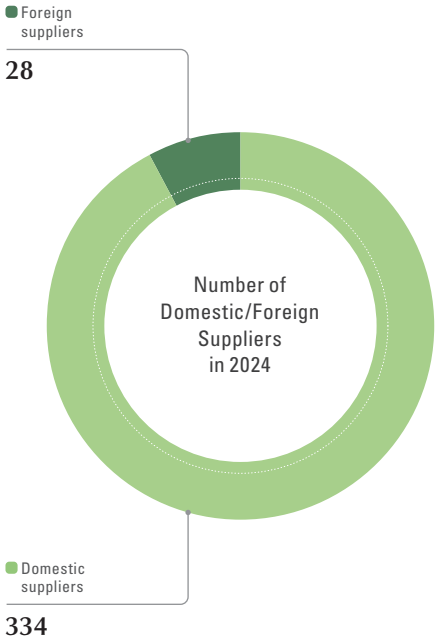
New Achievements in 2024

- ☑ Updated the Supplier Corporate Social Responsibility Commitment.
- ☑ Formulated the Supplier Code of Conduct for Corporate Social Responsibility and incorporated it into contracts as a behavioral standard for suppliers.
- ☑ Enhanced the supplier evaluation mechanism by adding scoring criteria for each assessment category to enable comprehensive management.
- ☑ Achieved NT$570 million in green procurement spending in 2024.

2.4.1 Strong Supply Chain Partnership GRI 2-6 · 204-1

TCC is well-aware that establishing partnerships with suppliers is an important basis to reduce operation costs, improve power generation efficiency and ensure a stable supply of fuel. Such partnership is essential to TCC's sustainable development; therefore, TCC continues our effort to establish a sustainable and competitive supply chain ecosystem, and is committed to maintaining long-term, good partnerships with high-quality suppliers around the globe, jointly creating a stable supply chain. As of the end of 2024, there were 3,436 suppliers registered in TCC Group's supplier database. The number of domestic suppliers has increased year by year, while foreign suppliers mainly provide maintenance and spare parts for overseas equipment.





Note 1: Domestic suppliers refer to those with headquarters established in Taiwan.
Note 2: 2024 sampling data includes contracts NT$150,000+ for TCC and Star Energy, NT$300,000+ for the Guan Tian Plant, and NT$1 million+ for the three IPPs.

Our types of suppliers and customers:

Supplier	
Equipment and Spare Parts	Equipment, spare parts, components, and related hardware and software systems for company operations, project contracting, and power plant operations
Materials and Raw Materials	Raw materials, fuel, and related materials required for company operations, project contracting, and power plant operations
Office Supplies and Services	Office supplies, services, and miscellaneous purchases
Engineering Design/Services	Various types of design services
Project Construction	Various professional design tasks, feasibility studies, environmental impact assessments, and system impact analyses
Real Estate, Plants, and Equipment	Procurement of information equipment, transportation vehicles, office equipment, etc.
Labor (Service) Work	Labor-intensive work such as temp work, security, cleaning, technician services, etc.
Leasing	Leasing of offices, transportation vehicles, and multi-function printers
Insurance and Professional Services and Others	Insurance and professional services (such as accountants, lawyers), etc.

Customer

Electricity User | Steam User | Owner

Percentage of Procurement Amount by Category in 2024

Other

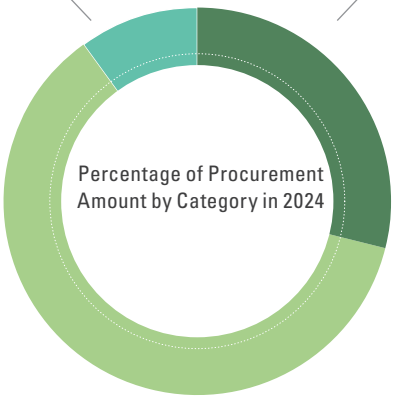
Office supplies and services, labor (service), leasing, and insurance, professional services and others

10%
NT$1.1 billion

Equipment and Materials

Equipment and spare parts, materials and raw materials, real estate, plant and facilities

29%
NT$3.3 billion



Engineering and Services

Engineering design/services, and project construction

61% | NT$7.0 billion

2.4.2 Systematic Procurement Management and Material Management

The Group has implemented an electronic system for procurement, payment, and material management. This system integrates functions such as purchase requisition, procurement, acceptance check, payment requisition/payment, and material management, facilitating real-time information transmission and data consolidation. Through electronic connectivity, it streamlines operational processes and incorporates electronic approval procedures based on authorized levels. The introduction of this system further deepens and enhances traditional management practices, reducing manual processes, optimizing workflow, and integrating data elements. As a result, it lowers operating costs, enhances the internal data utilization value, and promotes transparency in management systems. This contributes to the improvement of overall efficiency within the Group.

2.4.3 Comprehensive Supplier Management

GRI 2-23、2-24、308-1、408-1、409-1、414-1

Supplier Management and Procurement Policy

TCC adopts a rigorous and prudent approach to the procurement of equipment, spare parts, and the contracting of engineering projects. Priority is given to suppliers that demonstrate excellent performance in areas such as collaboration, product quality, environmental sustainability, workplace safety, and cost efficiency. This ensures a stable supply to all power plants and aligns with the Company's operational needs. All procurement-related processes are conducted in accordance with the procurement procedures and authorization regulations stipulated by ISO 9001. These processes undergo verification by third-party organizations and internal audits. The Company upholds the principles of fairness and reasonableness in making procurement decisions.

Since 2023, we have proactively sent an electronic version of the Ethical Corporate Management Principles during the quotation stage, along with the reporting hotline and contact email, to ensure that all suppliers fully understand the Company's commitment to ethical management and to comprehensively implement the promotion of these principles.

TCC establishes clear provisions and terms within the procurement and engineering contracts with our suppliers, covering aspects such as product quality, delivery schedules, payment methods, penalties for delays, performance, and warranty responsibilities. The Company aims to establish a win–win model by fostering mutual assistance and growth with our suppliers.

Ethical Management

In order to establish and implement ethical management as a part of our corporate culture, and to prevent dishonesty, improper conduct or acceptance of improper benefits, TCC has established the following terms in the contract:

1. In the event of dishonest behavior, the contract may be terminated or rescinded unconditionally.
2. If someone receives commissions, rebates, or other illegitimate benefits, the incident must be immediately and truthfully reported, with evidence provided and cooperation with related parties for investigation.
3. If the Company suffers damage from such improper action, it may request compensation for damages.
4. Grievance mechanism - whistleblowing procedure and channels are available.

Supplier Corporate Social Responsibility

Upholding the principles of ethical management and corporate social responsibility, the Company continuously enhances supply chain management to ensure that suppliers not only meet operational requirements but also uphold core values such as environmental protection, labor and human rights, workplace safety and health, and sustainable development.

In 2024, the signing rate for our Supplier Corporate Social Responsibility (CSR) Commitment reached 95.2%, meeting the established target.

Bidding Stage

Corporate Social Responsibility Commitment

Suppliers with a purchase amount of NT$300,000 or more must sign and submit this commitment, ensuring that participating bidders demonstrate corporate social responsibility awareness. The content includes five main areas:

- Protecting labor rights
- Ensuring health and safety
- Implementing environmental protection
- Following ethical conduct
- Strengthening management systems

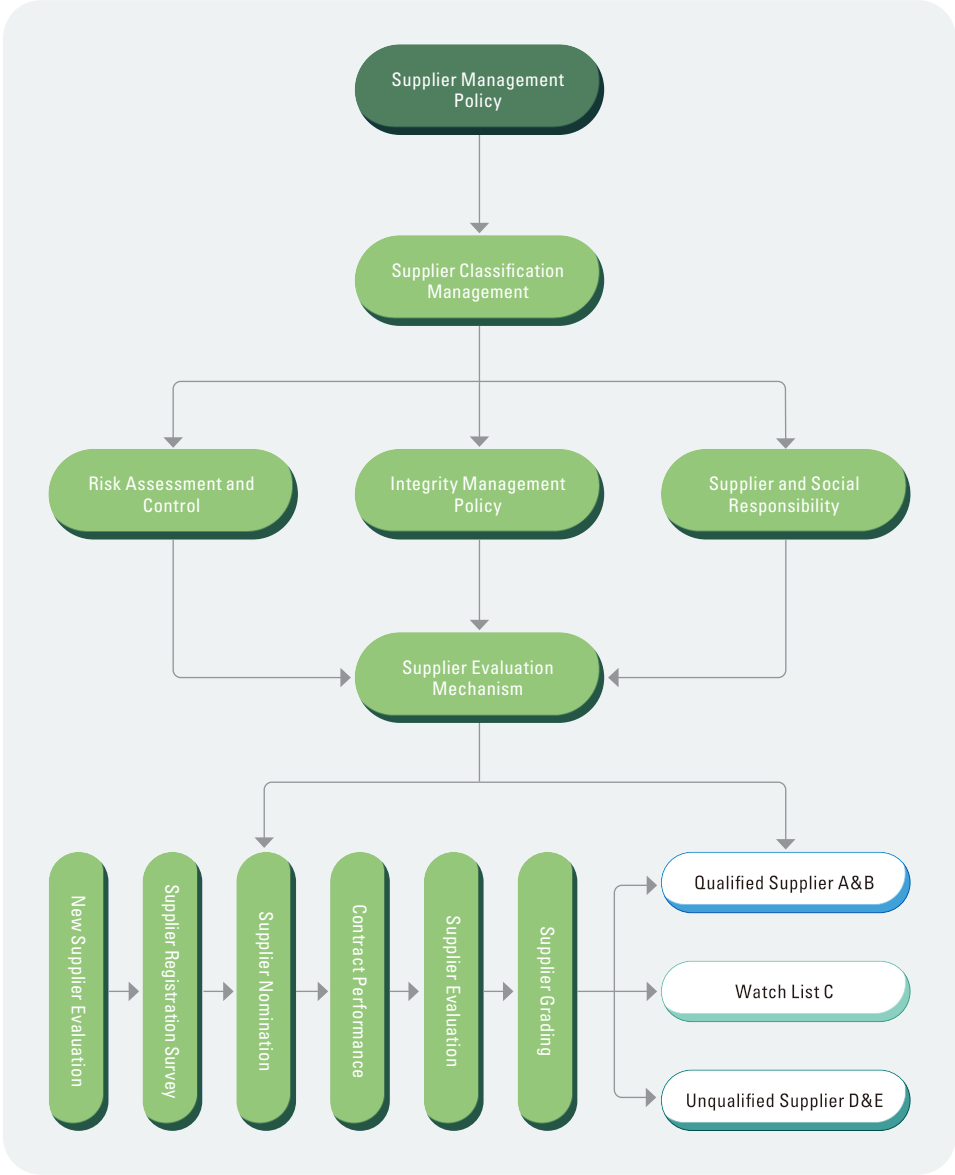
Contract Stage

Supplier Corporate Social Responsibility Code of Conduct

Established in 2024 and incorporated into contract terms as the standard and regulations that suppliers must comply with. Clearly specified standards include:

- Respect for employee freedom
- Prohibition of child labor
- Prohibition of any form of forced labor
- Environmental pollution reduction
- Ethical Management

Supplier Management Structure



Supplier Selection and Evaluation Mechanism

New Supplier Selection Mechanism

In 2024, TCC added a total of 155 new suppliers. To ensure that suppliers possess a sound management system, are capable of delivering goods or completing engineering projects on time and with quality, and fulfill their corporate social responsibility, TCC requires all first-time participating suppliers to pass the New Supplier Review and Evaluation Form. Only those scoring 70 points or more are deemed qualified to participate in procurement and tendering processes.

Contents of the New Supplier Evaluation Form:

- ☑ Financial stability
- ☑ Contract fulfillment capability
- ☑ Project (delivery) performance and technical expertise
- ☑ Corporate integrity and regulatory compliance
- ☑ ISO 9001, ISO 14001, ISO 45001 certifications
- ☑ Foreign migrant workers and labor rights protection
- ☑ Commitment to corporate social responsibility
- ☑ Environmental protection and occupational safety and health

All of our supplier evaluations are conducted based on social and environmental standards, achieving a 100% screening rate. Suppliers are also required to sign the Supplier CSR Commitment to ensure the implementation of foreign migrant worker rights protection, environmental protection, and ethical management throughout the supply chain.

Supplier Evaluation Mechanism

To ensure quality and effective management, the purchasing unit and the procurement application unit conduct supplier evaluations after the completion of projects and services, and complete a Supplier Evaluation Form or Construction Contractor Evaluation Form, which contains evaluation on reliability, price, quality and delivery. Each Supplier must also complete a CSR Commitment as a reference.

The supplier evaluation system is divided into five grades based on actual scores: A, B, C, D, and E. The grading criteria are as follows:

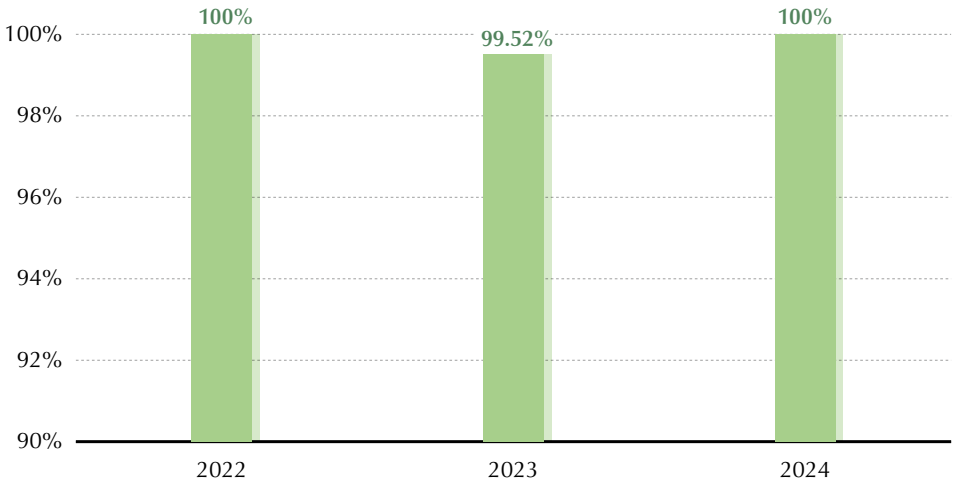
Grade A	Grade B	Grade C	Grade D	Grade E
Score of 85 or higher	Score of 70–84	Score of 60–69	Score of 51–59	Score of 50 or lower
Regarded as qualified suppliers; given priority to participate in price negotiation	Regarded as qualified suppliers	On the watch list and will be re-evaluated after improvement; the period for observation is one year	Regarded as unqualified suppliers; not allowed to participate in the Company's procurement and contracting for three years	Regarded as unqualified suppliers; not allowed to participate in the Company's procurement and contracting for five years

2024 evaluation results:

TCC's supplier evaluations in 2024 focused on continuously strengthening supplier management. The number of unqualified suppliers remained minimal. If deficiencies were identified during contract implementation, suppliers were immediately required to implement corrective actions and propose solutions with clear improvement targets and timelines. If a supplier was unwilling to cooperate, breach of contract procedures was initiated promptly, including withholding progress payments, final payments, performance bonds, or suspension of qualifications, to safeguard the Company's best interests. In 2024, there were a total of 408 qualified suppliers and zero unqualified suppliers. No suppliers were suspended due to dishonesty or breach of contract during the year.

Name	Qualified suppliers	Unqualified suppliers	Suspended Suppliers in 2024
TCC (including the Guan Tian Plant and Miaoli Wind)	73	0	0
Star Energy	61	0	
Chang Bin Gas-Fired Power Plant of Star Energy Power	97	0	
Star Buck Gas-Fired Power Plant of Star Buck Power	86	0	
Fong Der Gas-Fired Power Plant of Sun Ba Power	91	0	

TCC Group qualified supplier rate, past three years



Supplier Sustainability Performance Self-assessments

Since 2019, TCC has required suppliers to provide self-assessment questionnaires regarding their CSR commitments. The purpose is to gain in-depth understanding of the suppliers' implementation of commitments in aspects such as environment, economy, society, and human rights. The results of the self-assessment questionnaires serve as the basis for strengthening supplier management in the future. In 2024, the response rate for the self-assessment questionnaires reached a high of 97.8%. Moving forward, we will take a more proactive approach to fulfill CSR in collaboration with suppliers, aiming to enhance the effectiveness of sustainable supply chain management.

On-site Audits of Supplier Sustainability Performance

Since 2019, TCC has been conducting on-site visits from time to time to important suppliers to verify the implementation status of their ESG practices. In accordance with the on-site audit checklist, assessments cover five major areas: protection of labor and human rights, health and safety assurance, environmental protection practices, adherence to ethical standards, and enhancement of management systems. The assessment criteria are divided into four levels: Compliant Items; Items Requiring Observation; Minor Non-compliance Items; and Serious Non-compliance Items. A score of 70 or more in the on-site audit is considered qualified. If there are Items Requiring Observation or Minor Non-compliance Items, follow-up monitoring of the improvement results is conducted regularly. In the case of Serious Non-compliance Items, the supplier is required to develop an improvement plan to address the deficiencies. TCC not only sets deadlines for suppliers to make improvements and submit improvement reports, but also conducts periodic audits on suppliers with non-compliance items to mitigate operational risks. In 2024, all seven audited suppliers met the requirements of the CSR Commitment.

2.4.4 Actively Promoting Green Procurement

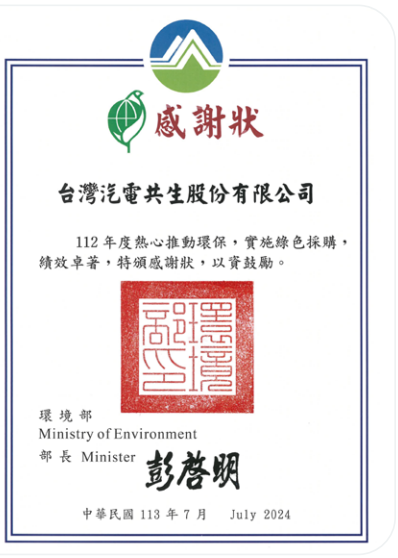
With the beliefs of saving resources, reducing pollution, promoting recyclability and implementing corporate sustainable development, TCC Group is paying attention to issues such as global warming, environmental pollution and climate change. We are an active promoter of Green Procurement, aiming to establish our image as an outstanding corporation and gain competitive advantages.

Since 2018, TCC has continuously increased our level of green procurement. We adhere to the belief of loving the Earth and prioritizing environmental protection, striving to reduce resource waste, mitigate environmental impacts, and improve environmental quality through the creation of a green supply chain. The total amount of green procurement in 2023 exceeded NT$450 million, reaching the award amount set by the Ministry of Environment.

The company was later recognized at the Ministry's Green Procurement and Green Consumption Promotion Awards held on August 28th, 2024.

At the end of 2024, we also reported NT$570 million in green procurement for 2024, meeting the award criteria set by Taipei City Government's Department of Environmental Protection and the Ministry of Environment. Moving forward, TCC will continue encouraging employees of the Group to actively procure eco-labeled green products, working together to achieve energy conservation and carbon reduction.

Award and certificate of thanks from Ministry of Environment


感謝狀

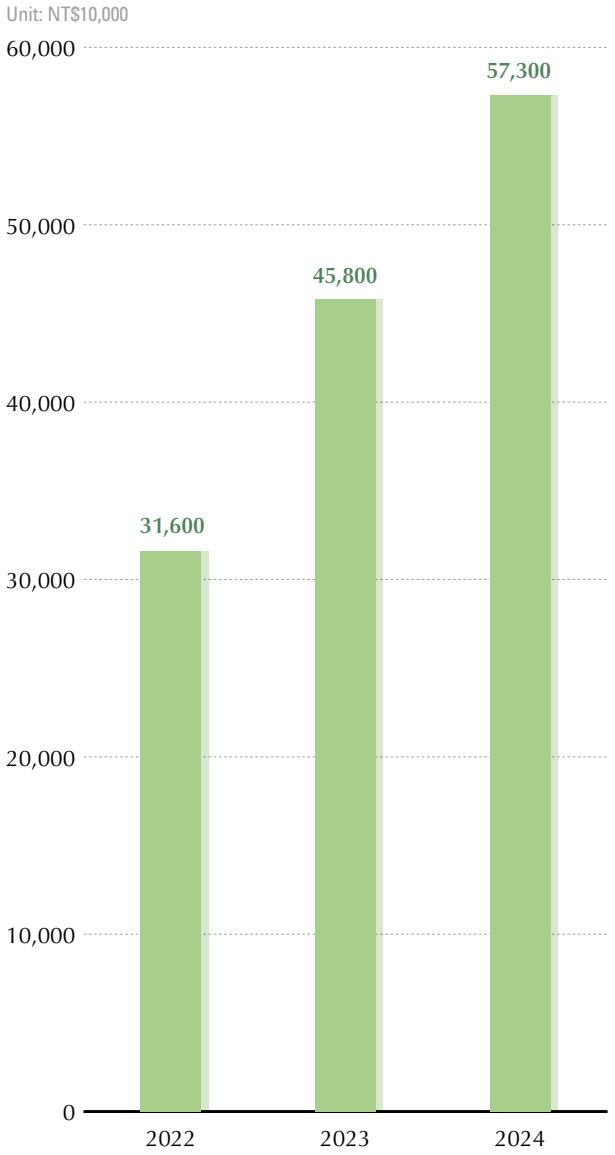
台灣汽電共生股份有限公司

112 年度熱心推動環保，實施綠色採購，績效卓著，特頒感謝狀，以資鼓勵。

環 境 部
Ministry of Environment
部 長 Minister 彭啓明

中華民國 113 年 7 月 July 2024

Green procurement levels, past three years



CHAPTER 03
Environmental Sustainability and Climate Governance

Goals

Fuel substitution ratio (SRF and scrap tires) ≥ 30%

Waste recycling rate ≥ 99.8%

Enhance GHG emissions management

Complete TCC GHG inventory and third-party verification

Obtain solid biofuels combustion permit to reduce GHG emissions

2024 Performance

Energy Management

In 2024, Guan Tian Plant achieved an electricity saving rate of **0.73**%

The three invested gas-fired power plants reduced annual carbon emissions by approximately **1.36 million** metric tons of CO_2e

Circular Economy

Processed **30,137** metric tons of scrap tires/**3,001** metric tons of SRF

Achieved a fuel substitution rate of **29.77**%, reduced coal consumption by **48,274** metric tons

Coal ash production: 22,880 metric tons, **100%** recycled into CLSM

Material Topics

Energy and Resource Management

3.1 Climate Change and Energy Management

3.1.1 Response Strategy and Environmental Management GRI 201-2

With the intensifying impacts of global warming and climate change, carbon reduction and the net-zero transition have become top priorities for countries worldwide. As the previous cycle of nationally determined contributions (NDCs) expires in 2025, nations are gradually updating to NDC 3.0, setting their carbon reduction targets and strategies to address climate change impacts through 2035. Taiwan has enshrined the 2050 Net-Zero Emissions targets in law, announced three carbon fee regulations in August 2024, and announced the approved carbon fee rates in October 2024, thus officially ushering in the era of carbon pricing. These efforts aim to reduce greenhouse gas emissions, achieve sustainable development, and reach the net-zero goals.

TCC closely monitors global climate change trends and stays attuned to market developments. To mitigate direct and indirect impacts of climate change, while aligning with policies and regulatory requirements, we follow the four Task Force on Climate-related Financial Disclosures (TCFD) pillars: Governance, Strategy, Risk Management, and Metrics and Targets. Within these categories and the 11 recommended disclosure items, TCC identifies potential climate-related risks and opportunities, then formulates corresponding response measures.

Aspect	Management action	Corresponding section
Governance	• The Board of Directors serves as the highest governing body for risk management. It is responsible for overseeing the risk management mechanism's operations and ensuring its effectiveness. • TCC has established the Risk Management Committee, composed of the Company's Chairman, President, and Vice President. The Committee is responsible for reviewing TCC's annual risk management plan and evaluating the effectiveness of risk implementation. This ensures that the risk management mechanism effectively addresses the Company's risks, and risk management is integrated into daily operations. The Risk Management Committee reports annually to the Board of Directors and the Audit Committee on operations and implementation status.	1.3 Risk Management
Strategy	• Conduct research on global trends, policies, and regulations, then formulate response strategies for short-, medium-, and long-term climate-related risks and opportunities. These strategies aim to mitigate operational impacts and seize timely opportunities. • Apply both mitigation (reducing greenhouse gas emissions to lessen climate impact) and adaptation (adjusting to climate change impacts); identify potential climate-related risks and opportunities; take corresponding actions. 1. Transition Risks: Assess and respond to regulatory and technological changes affecting TCC in areas such as renewable energy, fuel and energy taxes, and carbon fees. 2. Physical Risks: Address increased risks such as project delays resulting from more-frequent extreme weather events (e.g., typhoons and floods). 3. Opportunities: With enterprises paying more attention to low-/zero-carbon energy in line with global and domestic net-zero trends, this will increase TCC's opportunities to expand our operations and sales.	3.1 Climate Change and Energy Management
Risk Management	• Use issue analysis to compile topics that may impact TCC, then plan corresponding response strategies. • Review environmental impacts and greenhouse gas emissions from operations annually; use ISO 14001 and ISO 14064 standards for systematic management; plan process improvements and emission reduction measures. • Implement transition risk management in the supply chain; use supplier evaluation mechanisms, corporate sustainability commitments, and on-site sustainability performance audits to mitigate climate impacts and risks. • Integrate climate-related risks and opportunities into TCC's risk management policy, procedures, and plans, with rolling reviews and updates. Cross-departmental task force meetings and Risk Management Committee meetings are held to identify and discuss risks.	2.4 A Sustainable Supply Chain 3.2 Environmental Protection
Metrics and Targets	• Based on climate-related risk and opportunity impacts on TCC, set KPIs and short-, medium-, and long-term goals for alternative fuels, energy conservation and carbon reduction, and water resource management. • Regularly conduct and disclose Scope 1 and Scope 2 greenhouse gas (GHG) emissions data, assess transition risks and corresponding response actions, and conduct GHG inventory and verification across the Group. • Continue implementing energy-saving and carbon-reduction initiatives, such as process optimization and electricity conservation, to improve operational performance and reduce energy consumption.	Material Topic Management Approach 3.1 Climate Change and Energy Management

Climate-related risk/opportunity	Category	Criterion	Management impact/financial impact	Response strategy
Climate-related Risks: Transition Risks	Policy and Legal	Renewable energy-related, fuel/energy taxes and regulations	• Policy or regulatory changes may lead to investment/development losses • Regulatory revisions may increase operating costs for existing power plants	• Promptly gather information on government policies and legislation implementation schedules; assess impacts and response measures as early as possible • Provide suggestions to regulatory authorities in a timely manner; carry out external engagement
		• Climate Change Response Act • Cap and trade • Carbon taxes/fees	• Caps on total GHG emissions and stricter air pollution standards may increase equipment upgrade/operating costs • Government imposition of carbon fees may raise operating expenses • Coal phase-out policies of the government may lead to higher costs for upgrading coal-fired units or even force plant shutdowns	• Reduce internal energy consumption and carbon emissions • Conduct GHG inventories; implement power plant energy audits • Regularly maintain and replace aging equipment to reduce energy consumption and carbon emissions • Increase alternative fuel ratios in cogeneration and apply for expanded alternative fuel categories, to reduce coal use • Establish GHG reduction plans and propose voluntary reduction project • Assess retrofit or repowering options for existing coal-fired units
	Technology	Low-carbon transition	As net-zero targets tighten, traditional coal/gas-fired power plants must assess upgrades; operating costs may increase	• Generation unit upgrades; assess co-firing with hydrogen or ammonia • Evaluate adoption of CCUS (carbon capture, utilization, and storage) technologies
	Market	Energy supply and demand	Changes in energy market supply and demand structure and emergence of new business models in the power market may impact operating costs	• In response to the energy transition, assess the feasibility of upgrading and replacing existing power plant units • Expand renewable energy services and increase green electricity capacity
	Reputation	Corporate reputation	Climate issues strongly impact the energy sector; plant incidents and carbon emissions can damage reputation	• Strengthen power plant operating management to reduce accidents • Implement GHG management mechanisms, conduct regular inventory and verification, and set carbon reduction targets
Climate-related Risks: Physical Risks	Acute	Extreme weather events	Increased frequency of typhoons, floods, droughts, torrential rain, heatwaves, and other extreme weather events may delay construction or cause operating losses	• Purchase insurance to mitigate disaster losses • Review construction progress on a weekly basis; respond to emergent situations in real time • Establish emergency response systems and conduct regular drills • Develop management plans and measures for resource risks caused by extreme weather
	Chronic	Changes in climate patterns	Long-term shifts in temperature and precipitation may extend drought periods, affecting operations and reducing revenues	
Climate-related Opportunities	Market	Domestic and international trends	• The rise of global environmental initiatives like RE100, SBTi, and green supply chains boost green electricity trading • Regulation for energy-heavy industries increases demand for renewable energy and facility installation	• Expand renewable electricity retailing business • Seek partnerships with external renewable energy power plants
	Resource efficiency	Energy and resource integration	Expand regional energy integration, improve energy utilization efficiency, and reduce environmental impacts	Integrate regional electricity and steam demand to maximize energy and resource utilization efficiency
	Renewable energy	Development of renewable energy	Improve domestic renewable energy services in response to government policies	• Expand development for renewable energy and energy storage business • Undertake domestic, large-scale renewable energy projects • Establish O&M teams for different renewable sources

In addition, TCC adopts a dual approach of "mitigation" and "adaptation" to reduce the impact of climate change on our operations. "Mitigation" refers to improving the efficiency of existing fossil fuel power plants, reducing fossil fuel usage, implementing energy and resource reduction plans, and developing renewable energy to achieve energy conservation and carbon reduction. "Adaptation" strategies include establishing an emergency response system for disasters, utilizing a command system to take appropriate actions in response to natural disasters that may be caused by climate change, such as heavy rainfall, droughts, typhoons, and earthquakes. Furthermore, TCC has established a greenhouse gas management mechanism, conducts annual GHG inventory and verification, and sets emission reduction strategies and targets to actively pursue net-zero emissions.

Response to Climate Change

Mitigation

- ☑ Strengthen the operation and maintenance of existing power plants, improve equipment efficiency, and reduce emissions.
- ☑ Use alternative fuels such as scrap tires and SRF (solid recovered fuel) to reduce coal consumption.
- ☑ Develop renewable energy businesses, including wind power, solar photovoltaic energy, and geothermal power as clean energy sources.

Adaptation

- ☑ Establish an emergency response system for disasters, including teams for notification, rescue, and medical services, with regular drills to respond to incidents and climate-related disasters.
- ☑ Establish a greenhouse gas management mechanism; conduct annual GHG inventory and verification, and formulate emission reduction strategies and targets.
- ☑ Establish risk management plans for extreme weather conditions, assess potential operational impacts, and formulate corresponding response measures.

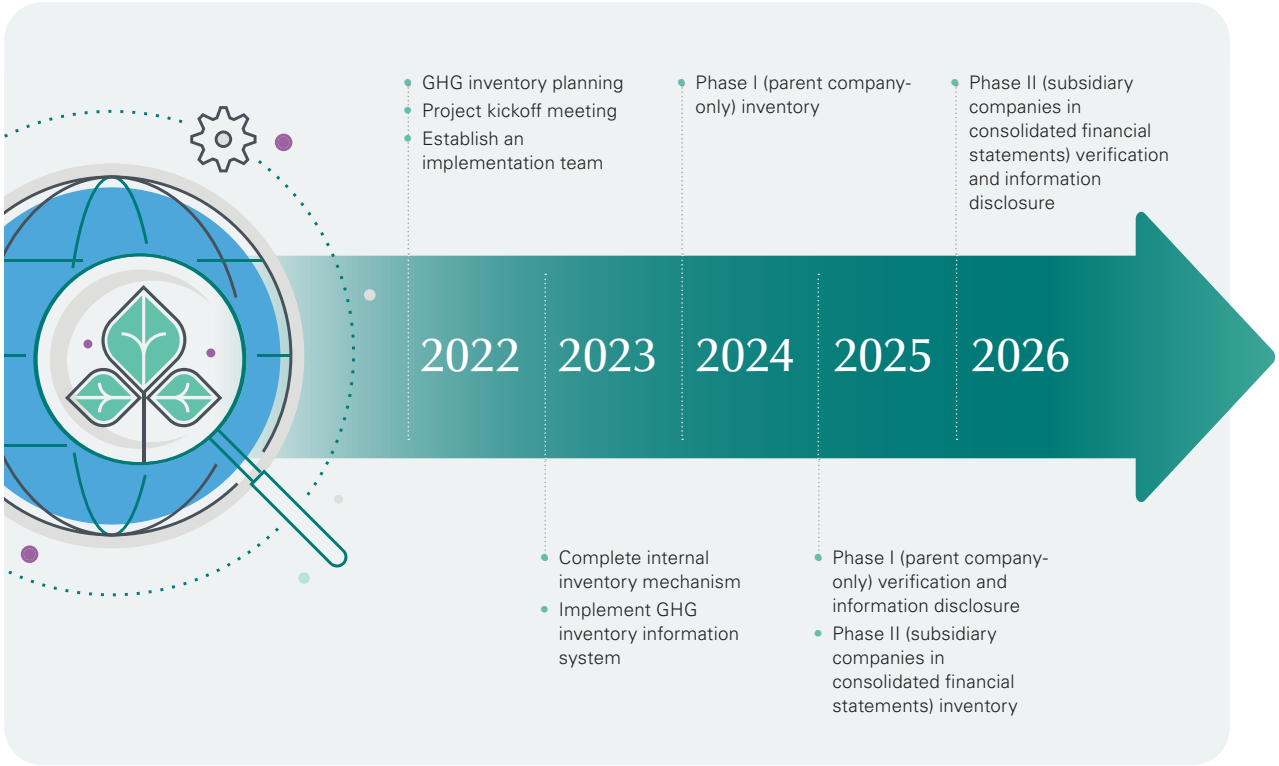
3.1.2 Energy Saving and Carbon Reduction

GRI 301-1 · 302-1 · 302-3 · 302-4 · 302-5 · 305-1 · 305-2 · 305-4 · 305-5 · 305-7 SASB IF-EU-110a.1 · IF-EU-110a.2 · IF-EU-110a.3 · IF-EU-420a.3 · IF-EU-000.E

Greenhouse Gas Management Strategies and Implementation Measures

Greenhouse gas (GHG) emissions are a major contributor to global warming and climate change, which are critical environmental issues around the world. It is essential to adopt proactive and cost-effective strategies to reduce GHG emissions and mitigate the environmental impact. To fulfill corporate carbon reduction commitments, we have established a Greenhouse Gas Management Policy along with supporting measures and reduction targets. Furthermore, we have planned to complete GHG verification and information disclosure for our consolidated subsidiaries by 2026. The roadmap is as follows:

For details on Greenhouse Gas Management Policy and Reduction Targets, please refer to the GHG Management section and page 105-106 of the Annual Report.



Greenhouse Gas Emissions

Headquarters Office and Guan Tian Cogeneration Plant

TCC operates primarily from its headquarters office in Taipei and the Guan Tian Cogeneration Plant in Tainan. Scope 1 GHG emissions at the Guan Tian Plant mainly come from the boiler power generation process, with some emissions from transportation (company vehicles and forklifts), septic tanks, refrigerant leakage, and maintenance. The GHG emissions data is as follows:

Region	Scope	Carbon dioxide equivalent (metric tons of CO_2e)		
		2022	2023	2024
Headquarters office	Scope 1	-	-	21
	Scope 2	-	-	261
	Scope 3	-	-	40
Guan Tian Plant	Scope 1	326,786	336,812	369,277
	Scope 2	6,181	358	254
	Scope 1	-	-	33
	Emission intensity (steam) (metric tons/metric tons)	0.362	0.300	0.299
	Emission intensity (electricity) (metric tons/kWh)	0.001050	0.001067	0.001111
TCC parent company	Emission intensity (metric tons of CO_2e/NT$ million)	127	142	63

Note 1: Headquarters office began GHG inventory in 2024; therefore, only that year is disclosed.
Note 2: Emissions are calculated using IPCC AR6 GWP values. National electricity carbon emission factor was 0.474 kg CO_2e/kWh for 2024. After third-party verification, 2023 Scope 1, Scope 2, and emission intensity data was revised.
Note 3: The types of gases mentioned above include: carbon dioxide (CO_2), methane (CH_4), nitrous oxide (N_2O), hydrofluorocarbons (HFCs), perfluorocarbons (PFCs), sulfur hexafluoride (SF_6), and nitrogen trifluoride (NF_3).
Note 4: Scope 3 (Category 3.3) employee commuting emissions are voluntarily disclosed based on ISO14064-1 Materiality.
Note 5: Emission intensity for the Guan Tian Plant refers to the carbon emissions per unit of steam production or electricity generation, calculated by dividing the carbon emissions (metric tons), allocated between steam and electricity, by the total steam output (metric tons) or electricity output (kWh).
Note 6: TCC parent company emission intensity is calculated as total Scope 1 and 2 emissions divided by parent company revenue (in NT$ million). 2022–2023 figures are based on the emissions of Guan Tian Plant; 2024 figures are based on the emissions of both headquarters and Guan Tian Plant.

Invested Gas-fired Power Plants

TCC has invested in three gas-fired power plants. Their GHG emissions and emission intensities are shown below. In 2024, the average emission intensity for the three invested gas-fired power plants was 0.378 kg CO_2e/kWh, which was 0.116 kg CO_2e/kWh lower than the national electricity carbon emission factor for 2023. Based on the total electricity sold for the three gas-fired power plants in 2024, this equates to a reduction of approximately 1.36 million metric tons CO_2e per year.

Region	Scope	Carbon Dioxide Equivalent (metric tons of CO_2e)		
		2022	2023	2024
3 IPP's	Scope 1	4,177,165.10	4,296,421.91	4,414,850.39
	Scope 2	7,812.69	7,228.65	7,199.15
	Total	4,184,977.79	4,303,650.56	4,422,049.54
	Emission intensity (metric tons/kWh)	0.000377	0.000378	0.000378

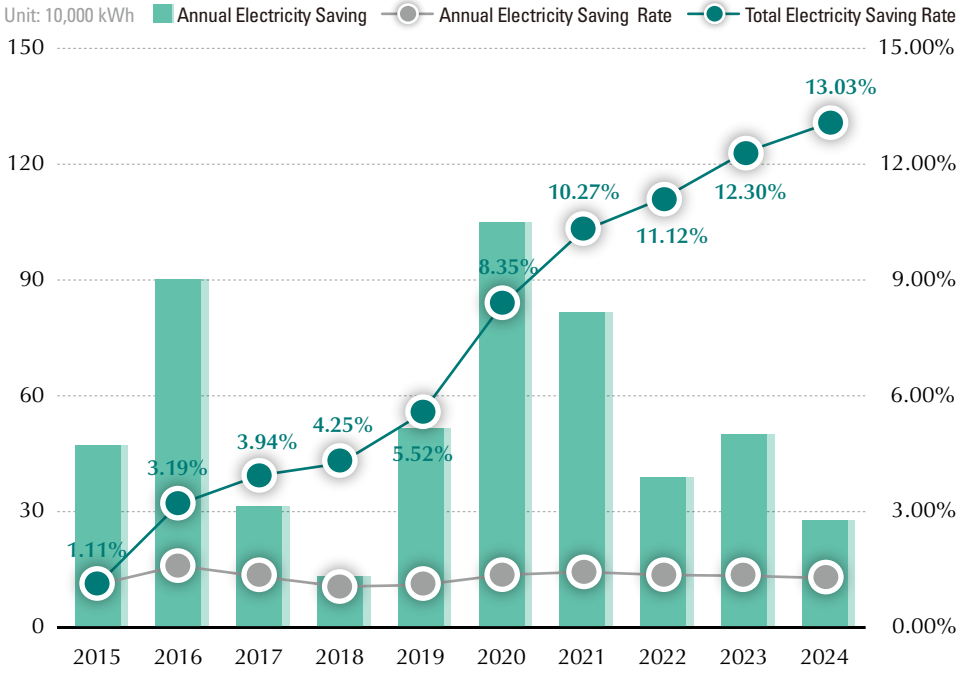
Note 1: National electricity carbon emission factors were 0.495 kg CO_2e/kWh for 2022, 0.494 kg CO_2e/kWh for 2023, and 2024 was estimated based on 2023.
Note 2: The data for 2024 was preliminary internal estimates. After third-party verification, the data of Scope 1, total, and emission intensity for 2023 was revised.
Note 3: The types of gases for Scope 1 and Scope 2 mentioned above include: carbon dioxide (CO_2), methane (CH_4), nitrous oxide (N_2O), hydrofluorocarbons (HFCs), perfluorocarbons (PFCs), sulfur hexafluoride (SF_6), and nitrogen trifluoride (NF_3).
Note 4: Emission intensity refers to GHG emissions per unit of electricity generated, calculated as total Scope 1 and 2 emissions divided by total electricity output (kWh).

Verification Standards and Data Quality

Since 2005, the Guan Tian Plant has voluntarily conducted annual GHG inventory and data registration. Starting in 2014, as it met the criteria of the first batch of regulated entities under the Environmental Protection Administration's Regulations Governing the Reporting and Management of Greenhouse Gas Emissions, the plant has commissioned third-party institutions to conduct verification in order to ensure data accuracy, monitor GHG emissions, and implement effective reduction measures accordingly. To ensure the quality and credibility of the group's GHG inventory data and reporting, all results are verified by independent third-party verification bodies in accordance with the ISO 14064-1 standard.

Energy Consumption Within the Organization

To monitor energy consumption, TCC's headquarters office, Guan Tian Plant, and invested gas-fired power plants continuously analyze energy usage and implement different energy-saving measures. The Guan Tian Plant has actively planned energy-saving improvements and is committed to reducing energy consumption and carbon emissions as a contribution to environmental sustainability. In 2024, the plant achieved an electricity saving rate of 0.73%. From 2015 to 2024, the cumulative electricity saving rate was approximately 13.03%, with an average annual electricity saving rate of around 1.28%. Going forward, the Guan Tian Plant will continue to carry out energy efficiency improvements to meet the government's energy policy target of achieving an average annual electricity saving rate of at least 1.5%.



Energy Consumption and Energy Intensity

Headquarters Energy Consumption (All Non-renewable Energy Sources)

	2022	2023	2024
Purchased electricity (GWh)	0.73	0.79	0.55

Note: Purchased electricity was calculated based on the Taipower electricity bill and proportional share of building electricity use. The 2024 data was further adjusted based on the leased floor area ratio in accordance with the rental agreement.

In 2024, the Guan Tian Plant was still affected by international coal price fluctuations and an increase in the number of plants using scrap tires as alternative fuel. As a result, the plant adopted higher procurement pricing and increased its purchase of scrap tires by about 20% compared to 2023. Additionally, the plant began to use solid recovered fuel (SRF) as an alternative fuel in 2023. However, in 2024, due to stricter regulations on SRF and uneven quality from SRF suppliers, the overall delivery volume decreased compared to 2023. The Guan Tian Plant is currently applying for a combustion permit for solid biofuels, and it is expected to begin usage in 2025. With year-round operation, the total internal energy consumption for the organization in 2024 was slightly higher than in 2023.

Guan Tian Plant

Unit: GJ

Guan Tian Plant		2022	2023	2024
Energy consumption (non-renewable energy)	Purchased electricity	43,736	27,804	12,165
	Coal	2,793,662	2,806,708	2,914,455
	Low sulfur fuel oil	11,086	6,994	6,343
	Scrap tires	909,325	792,007	969,721
	SRF	9,310	73,481	60,916
	Gasoline	101	92	115
	Diesel	99	82	40
	Liquefied petroleum gas (LPG)	6	2	8
Energy Sold	Electricity	808,492	714,978	704,290
	Steam	477,787	827,055	1,013,274
Total energy consumption within the organization		2,144,671	2,458,519	2,246,199
Steam energy intensity (GJ/metric tons)		4.07	3.81	3.84
Electricity energy intensity (MJ/kWh)		11.81	11.06	11.16

Note 1: The calculation for the purchased electricity: (In-plant electricity consumption + electricity sold) – amount of energy generated by Guan Tian Plant. Therefore, in addition to in-plant electricity consumption, electricity sold will also affect the energy consumption of purchased electricity.

Note 2: The heating value conversion coefficients of different fuels: Coal represents actual data, the conversion coefficient of scrap tires is based on value from the US EPA's 2013 Climate Leaders GHG Inventory Protocol (7,685 Kcal/kg), and the rest is based on the coefficients announced by the Energy Administration (version 6.0.3), while SRF is based on data provided by suppliers.

Note 3: Steam/electricity energy intensity refers to the energy consumed per unit of steam output/electricity generated. It is calculated as total energy consumption (GJ for steam or MJ for electricity) divided by total steam output (metric tons) or electricity output (kWh).

Invested Gas-Fired Power Plants

Unit: GJ

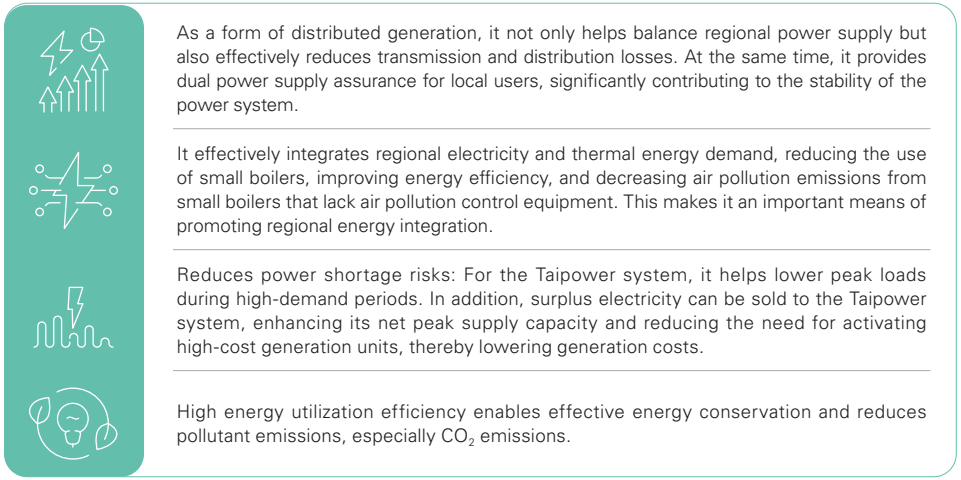
3 invested gas-fired power plants		2022	2023	2024
Energy consumption (non-renewable energy)	Purchased electricity	58,133	52,229	52,445
	Natural gas	67,698,476	69,398,793	71,329,955
	Gasoline	670	662	658
	Diesel	176	223	207
	Liquefied petroleum gas (LPG)	155	244	147
Energy consumption (renewable energy)	Purchased green electricity	0	0	0
Energy sold	Electricity	39,071,040	40,048,062	41,194,100
Total energy consumption within the organization		25,606,681	29,404,088	30,189,311
Gross power generation energy intensity (MJ/kwh)		6.10	6.10	6.09

Note: The heating value conversion coefficients of different fuels are based on the coefficients announced by the Energy Administration (version 6.0.3).

Energy Conservation and Carbon Reduction Measures and Results

TCC, with a mission of environmental sustainability, continues to implement energy conservation and carbon reduction measures, including process improvements and electricity-saving initiatives, with the aim of enhancing operating performance and reducing energy consumption.

TCC's Guan Tian Plant operates as a cogeneration system, which integrates power generation with the provision of steam and thermal energy for industrial processes. This integrated energy system typically achieves energy utilization efficiencies of at least 50%, significantly higher than systems that generate electricity alone. The main benefits include the following:



As a form of distributed generation, it not only helps balance regional power supply but also effectively reduces transmission and distribution losses. At the same time, it provides dual power supply assurance for local users, significantly contributing to the stability of the power system.

It effectively integrates regional electricity and thermal energy demand, reducing the use of small boilers, improving energy efficiency, and decreasing air pollution emissions from small boilers that lack air pollution control equipment. This makes it an important means of promoting regional energy integration.

Reduces power shortage risks: For the Taipower system, it helps lower peak loads during high-demand periods. In addition, surplus electricity can be sold to the Taipower system, enhancing its net peak supply capacity and reducing the need for activating high-cost generation units, thereby lowering generation costs.

High energy utilization efficiency enables effective energy conservation and reduces pollutant emissions, especially CO_2 emissions.

TCC's Guan Tian Plant has been operating for over 20 years. Over the years, continuous equipment upgrades and operational improvements have been made. Although future improvements are expected to yield relatively smaller benefits, the plant remains committed to the spirit of continuous improvement. The strategies and plans are as follows:

Strategy	Specific Plans	Description
Increase steam sales and expand regional energy integration	Continue visiting potential customers in the industrial park and actively develop new customers	Increasing steam sales can significantly enhance overall thermal efficiency
Monitor and adjust to maintain unit efficiency	• Review efficiency in monthly plant management and technical meetings • Optimize combustion conditions through analysis and discussion to improve unit efficiency	• Analyze unburned carbon and continuously adjust air flow to maintain efficiency • Evaluate and verify the rationality of all data
Reduce internal electricity consumption	• Use energy audit systems to monitor if system power usage is normal • Perform thorough maintenance during annual overhauls to reduce energy consumption • Evaluate and replace outdated equipment with high-efficiency alternatives as needed	• Induced draft fan (IDF, 1,050 kW, 3.3 kV) maintenance • Primary air fan (PAF, 1,400 kW, 3.3 kV) maintenance • Cooling water pumps (CWP B/C, 600 kW, 3.3 kV, 2 units) maintenance • Air conditioner replacement in the electrostatic precipitator (EP) control room • Major generator overhaul; steam turbine exhaust vacuum system replacement • Air conditioning unit (coal yard electrical room; DCS control room) replacement

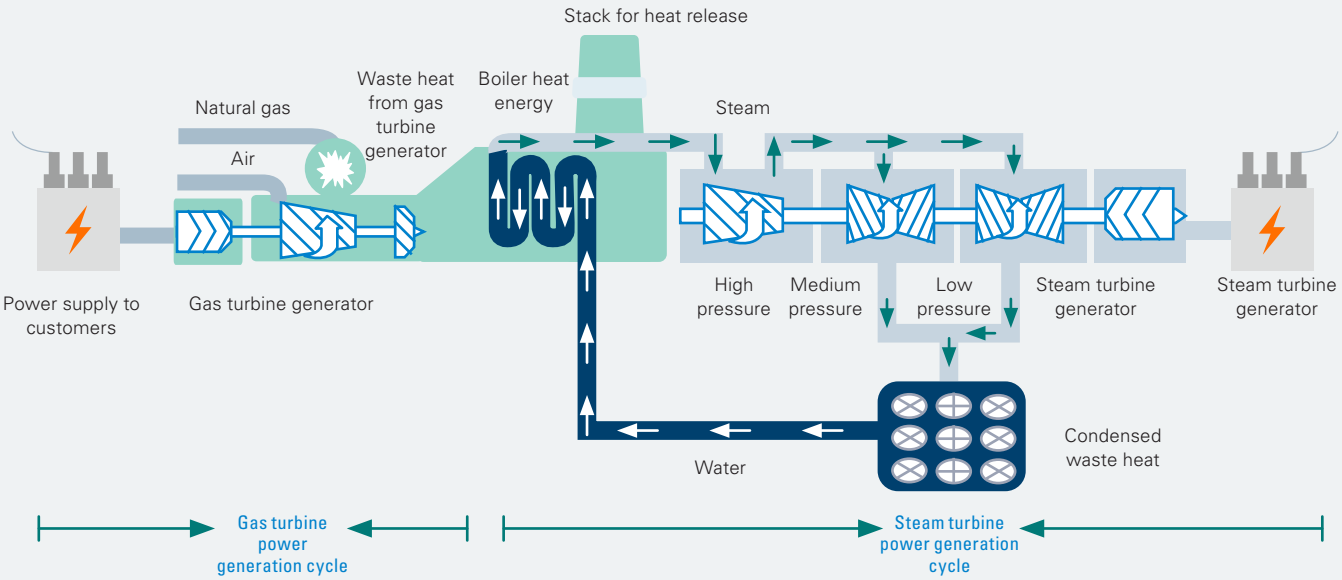
In terms of actual energy conservation and carbon reduction benefits, Guan Tian Plant implemented several related projects in 2024, saving approximately 88,000 kWh of electricity and 2,068 metric tons of coal, resulting in a reduction of about 4,295 metric tons of CO_2e. A summary of these energy-saving measures is as follows:

Guan Tian Plant				
Energy-saving/carbon-reduction plan	Energy type	Energy saved (GJ)	Carbon reduction (metric tons of CO_2e)	Period
Overhaul of IDF (1,050 kW, 3.3 kV), PAF (1,400 kW, 3.3 kV), and CWP B/C (600 kW, 3.3 kV, 2 units)	Electricity	198.50	26.14	1~2
Replacing EP control room air conditioning units	Electricity	6.90	0.91	1~2
Generator major overhaul and replacement of steam turbine exhaust vacuum system	Coal	48,281.63	4,252.77	3~12
Replacing air conditioning units (coal yard electrical room, DCS control room)	Electricity	111.56	14.69	2~12
Total		48,598.59	4,294.51	-

Note 1: Energy savings are estimated based on the 2024 Energy Conservation Measures and Energy Saving Amount reported to the Energy Administration.
Note 2: The carbon reduction from electricity saving (Scope 2) is calculated by using the national electricity carbon emission factor of 0.474 $kgCO_2e/kWh$ in 2024. The types of gases include carbon dioxide, methane, nitrous oxide, hydrofluorocarbons, perfluorocarbons, sulfur hexafluoride, and nitrogen trifluoride.

In terms of the power plants invested by TCC, Star Energy Power, Sun Ba Power, and Star Buck Power are all combined cycle gas-fired power plants. A combined cycle power plant uses gas turbines to generate power and recovers waste heat from the turbine exhaust to generate steam, driving a steam turbine generator to provide supplementary electricity. Combining the two thermodynamic cycles can improve the overall power generation efficiency.

The power generation efficiency of combined cycle gas-fired power plants reaches at least 50%, which is considerably higher than the sub-40% efficiency of typical coal-fired power plants. As a result, less fuel energy is required to generate each unit of electricity, thereby reducing greenhouse gas emissions and environmental impacts. Given the relative instability of most renewable energy sources, combined cycle gas-fired power plants serve as a balanced solution that supports both greenhouse gas reduction and stable power supply.



In terms of energy-saving and carbon-reduction initiatives, Star Energy Power, Sun Ba Power, and Star Buck Power continued to carry out process improvement and electricity conservation measures. In 2024, several energy-saving projects were carried out, saving approximately 2.3 GWh of electricity, equivalent to reducing about 1,090 metric tons of CO_2e. Major energy-saving projects are summarized below:

Plant	Energy-saving/carbon reduction plan	Energy type	Energy saved (GJ)	Carbon reduction (metric tons of CO_2e)	Period
Star Energy Power: Chang Bin Gas-Fired Power Plant	Internal motor overhaul/maintenance to reduce operational energy consumption	Electricity	2,662.49	350.56	Feb.-Dec.
	ST 3F plant lighting fixture replacement	Electricity	104.97	13.82	Jan.-Dec.
	Adjusting HRSG water level settings to shorten downtime by 17 minutes	Electricity	1,002.14	131.95	Jan.-Dec.
Star Buck Power: Star Buck Gas-Fired Power Plant	Heat Recovery Steam Generator (HRSG) No. 1 replacement	Electricity	45.96	6.05	Jan.-Feb.
	Replacing 90 lighting fixtures on HRSG No. 1 chimney platform	Electricity	11.83	1.56	Jan.-Jan.
	Replacing 50 lighting fixtures (changed from 150W to 50W LED) on the 24-meter ACC platform walkway	Electricity	3.29	0.43	Jan.-Jan.
	Replacing 65 lighting fixtures (changed from 150W to 50W LED) on HRSG-2 3–24m walkways and auxiliary boiler roof	Electricity	93.95	12.37	Jan.-Nov.
	Maintenance (HGPI) and generator rotor replacement with upgraded components for Gas Turbine Generator No. 1	Electricity	2,606.84	343.23	Jan.-Dec.
Sun Ba Power: Fong Der Gas-Fired Power Plant	Replacing constant frequency air compressor with variable frequency air compressor	Electricity	289.39	38.10	Jan.-Mar.
	Upgrading GT filters to reduce blade washing frequency	Electricity	532.39	70.10	Jan.-Dec.
	Replacing the air conditioning of ST 2F relay room to variable frequency air conditioning	Electricity	409.00	53.85	Jul.-Dec.
	Major overhaul and maintenance for Unit No. 2 high- and medium-pressure feedwater pumps	Electricity	418.18	55.06	Jan.-Dec.
	Replacing TCA variable frequency drives for GT-11/12/21/22	Electricity	100.76	13.27	Jan.-Dec.
Total		Electricity	8,281.18	1,090.35	-

Note 1: Energy savings are estimated based on the 2024 Energy Conservation Measures and Energy Saving Amount reported to the Energy Administration

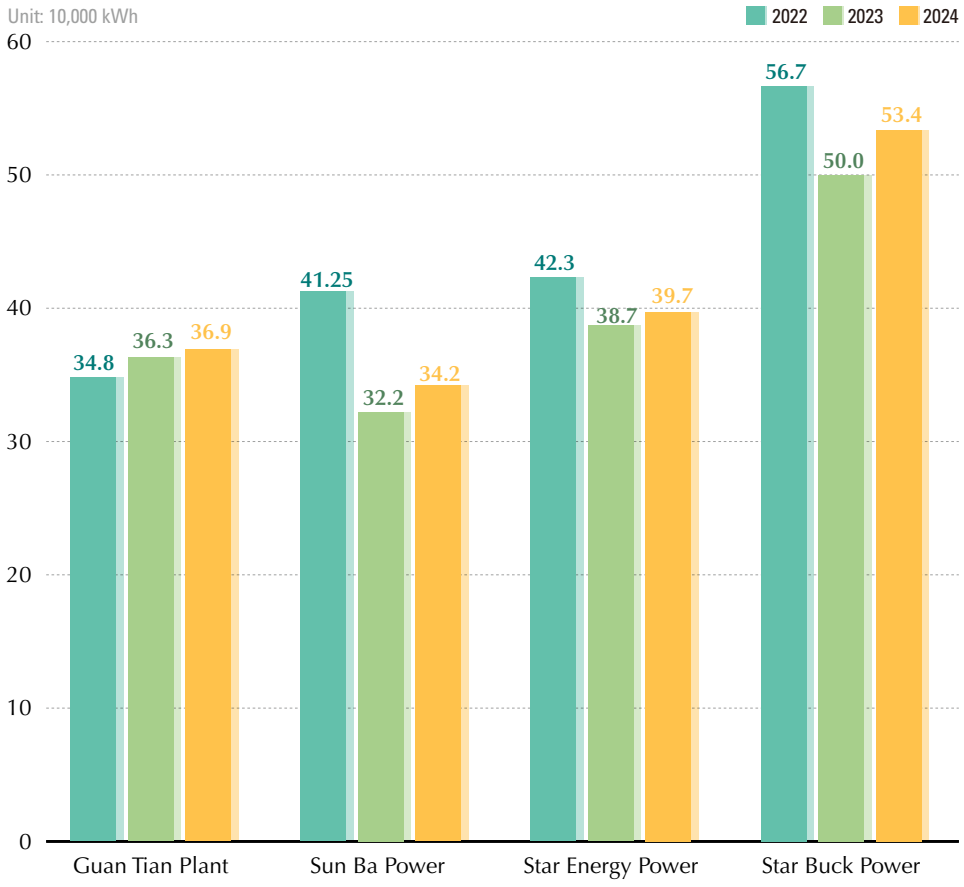
Note 2: All energy savings above are estimates.

Note 3: The carbon reduction from electricity saving (Scope 2) is calculated by using the 2024 national electricity carbon emission factor of 0.474 kgCO_2e/kWh. The types of gases include carbon dioxide, methane, nitrous oxide, hydrofluorocarbons, perfluorocarbons, sulfur hexafluoride, and nitrogen trifluoride.

Solar Photovoltaic Systems of Power Plants

Currently, TCC's Guan Tian Plant has a rooftop PV system with an installed capacity of 304 kW, with all generated electricity sold to Taipower. The business is operated and maintained by Star Energy. In addition, Sun Ba Power's Fong Der Gas-Fired Power Plant has a rooftop PV system with an installed capacity of 335 kW. Star Energy Power's Chang Bin Gas-Fired Power Plant has a 3.97 kW ground-mounted and a 304.7 kW rooftop PV system. Star Buck Power's Star Buck Gas-Fired Power Plant has a rooftop PV system with an installed capacity of 435.84 kW. All electricity generated by these solar photovoltaic systems is sold to Taipower at feed-in tariff rates.

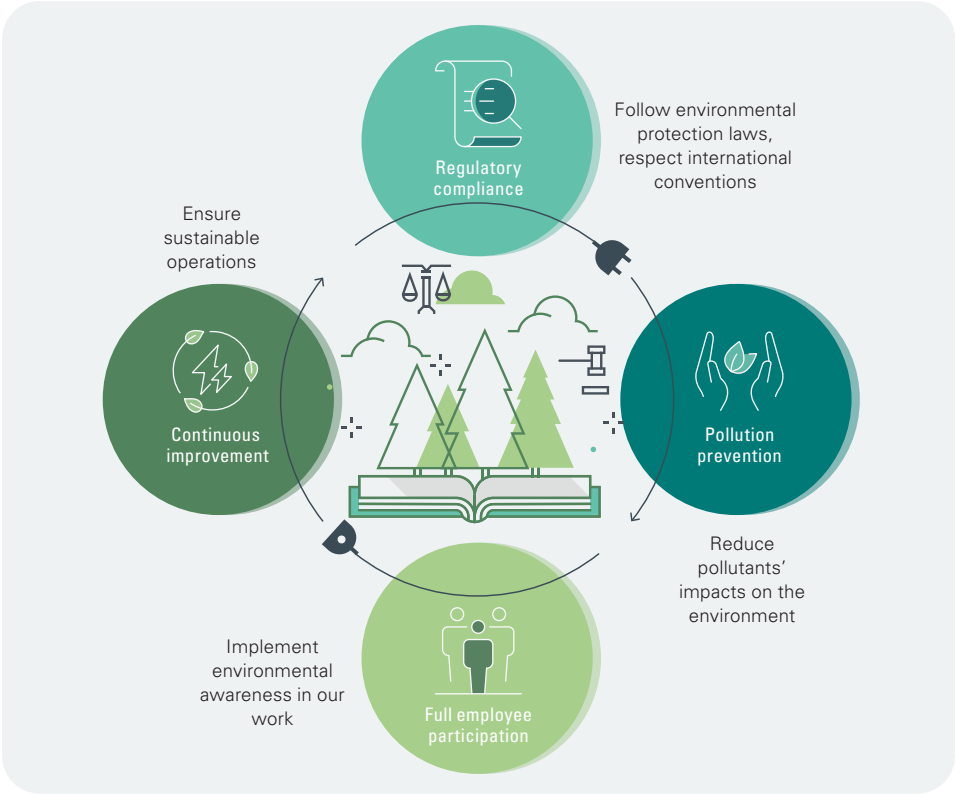
Electricity generated by solar PV systems at TCC and invested power plants



3.2 Environmental Protection

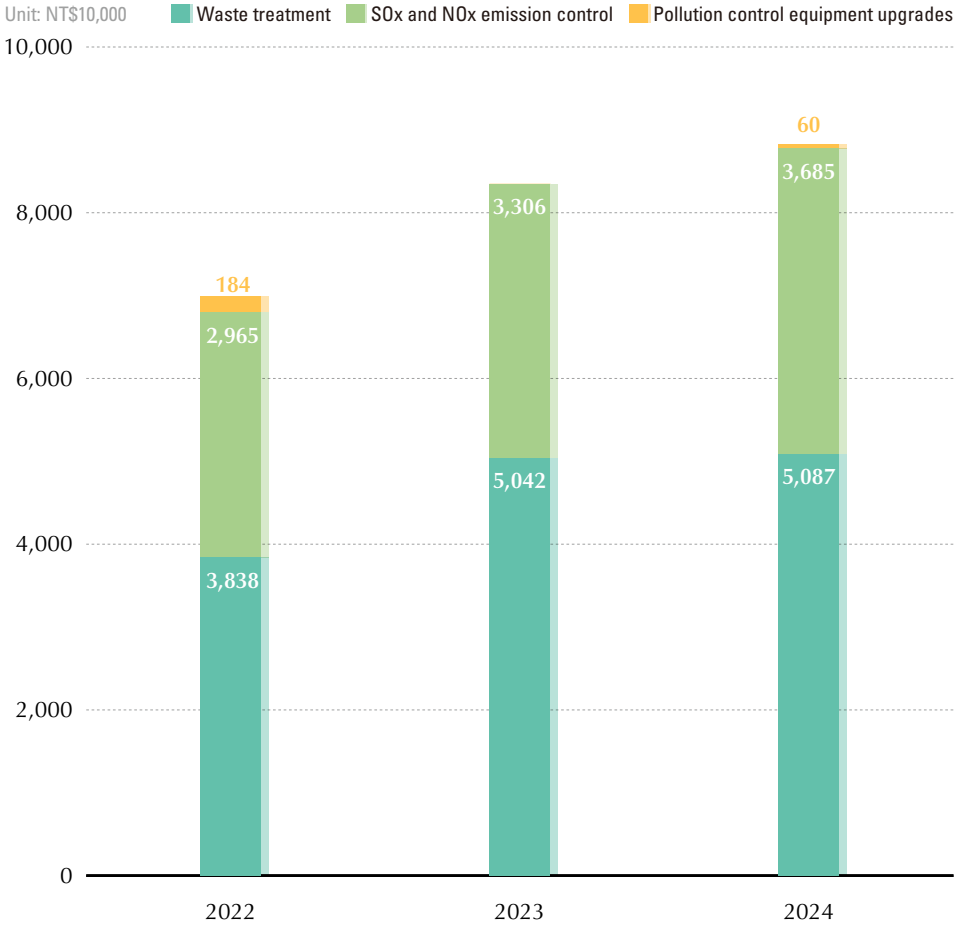
To fulfill TCC Group's corporate social responsibility, uphold our commitment to environmental sustainability, improve resource efficiency, and reduce waste at our power plants, the Guan Tian Plant obtained ISO 14001 Environmental Management System certification in 2017. In 2018, our subsidiary Star Energy also received ISO 14001 certification, expanding the application of the environmental management system to the construction engineering sector. Through this system, environmental aspects are identified and improved throughout the product life cycle, from production and construction to after use, in order to reduce environmental impact and realize TCC Group's goals of environmental conservation and sustainable operations.

Environmental Policy



To fulfill TCC's environmental protection commitments, the Guan Tian Plant allocates resources every year to pollution control and waste reduction/disposal. Over the past three years, approximately NT$240 million has been invested in environmental initiatives, averaging NT$80 million per year, which accounts for around 10% of Guan Tian Plant's production costs.

Environmental protection expenditures at Guan Tian Plant over the past three years



3.2.1 Circular Economy

GRI 301-1、306-1、306-2、306-3、306-4、306-5 SASB IF-EU-150a.1、IF-EU-150a.3

Ideas, Goals, and Measures for Resource Recycling

From its initial design phase, TCC's Guan Tian Plant proactively considered environmental sustainability by adopting circulating fluidized bed (CFB) boilers capable of utilizing a wide range of auxiliary fuels. In line with economic considerations, environmental responsibility, and government coal-reduction policies, TCC chose to use treated scrap tires and solid recovered fuel (SRF) as alternative fuels. This approach effectively enhances the utilization of resources and demonstrates TCC's commitment to contributing to society and the environment. Currently, SRF in the market is primarily composed of processed waste plastics, textiles, and wood. Guan Tian Plant obtained combustion permit for SRF in April 2023 and began its use thereafter. In 2024, the plant consumed 30,137 metric tons of scrap tires and 3,001 metric tons of SRF, resulting in a combined heating value substitution rate of 29.77% for these alternative fuels.

The list of major raw materials used by Guan Tian Plant is as follows (all are non-renewable raw materials):

Unit: metric tons, except fuel oil is in kiloliters (kL)

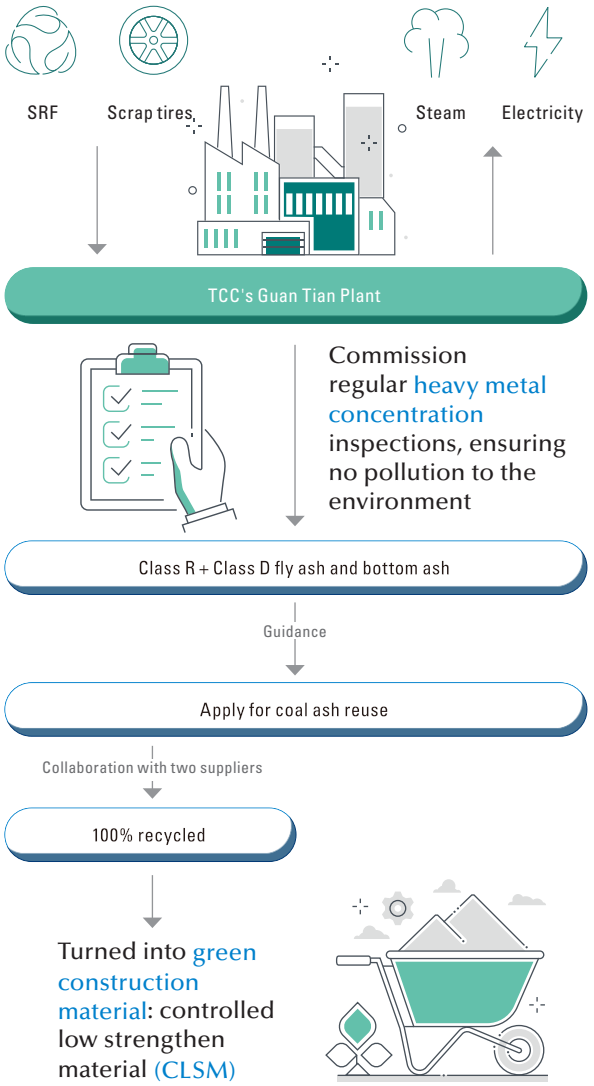
	Guan Tian Plant		
Raw Material	2022	2023	2024
Coal	119,744	120,217	124,832
Scrap tires	28,260	24,614	30,137
SRF	459	3,620	3,001
Fuel oil	276	174	158
Silica sand	176	229	152
Limestone	16,143	16,933	19,010

Circular Economy in the Value Chain: 100% Recycling Ashes from SRF and Scrap Tires

TCC adheres to a philosophy of regulatory compliance and environmental friendliness. At TCC's Guan Tian Plant, scrap tires are used as alternative fuel, helping to prevent the spread of dengue fever and environmental pollution caused by abandoned tires. Since 2022, solid recovered fuel (SRF) has also been introduced as an alternative fuel. SRF, co-fired with scrap tires and coal in the high-efficiency boilers of the cogeneration plant, reduces fossil fuel usage, lowers the burden on existing incinerators, and effectively addresses the problem of disposing of large quantities of waste by converting waste into energy.

In addition to outsourcing part of the recyclable Class R coal ash to qualified contractors for reuse, Guan Tian Plant collaborates with partner companies to apply for case-specific reuse of coal ash. Most of ash generated from the combustion process is transported to concrete plants, where it is mixed with cement raw materials in appropriate proportions to jointly develop controlled low strength material (CLSM). CLSM is known as a self-leveling material that does not require compaction, and it is well-suited to backfilling in tight spaces and areas inaccessible to machinery, such as large pipeline excavations, narrow trenches, and voids beneath roads or buildings.

To ensure that the produced coal ash does not cause environmental pollution, Guan Tian Plant commissions institutions accredited by the Ministry of Environment each year to conduct regular testing of heavy metal leachate concentrations in the ash. This ensures that the recycling process does not generate secondary waste, thereby upholding the principle of environmental friendliness.



Circular Economy and Environmentally Sustainable Production Model – Bottom Ash Recycling System

Guan Tian Plant has been in operation for over 20 years. Through continuous experimentation and improvements in equipment and operating techniques, the plant has achieved a production model that balances efficiency and environmental sustainability under the principles of a circular economy.

The plant uses a circulating fluidized bed (CFB) boiler. Silica sand serves as the fluidizing medium inside the boiler, with its primary function being the effective control of bed temperature and the reduction of high wear rates in the furnace bed caused by impure bed materials. In recent years, due to rising costs of silica sand and bottom ash treatment, the boiler manufacturer recommended recycling existing bottom ash. After particle size screening, the recycled ash can be reused. This reduces the amount of silica sand required and the volume of bottom ash to be treated. Additionally, since the surface of used bottom ash is smoother, it causes less wear on the boiler structure than new silica sand, which typically has more angular surfaces. As a result, Guan Tian Plant initiated a plan in 2017 to install a bottom ash recycling system, and this formally went into operation in 2018. The system was overhauled and upgraded in 2020 with a new bottom ash conveying system, which has been functioning well since.

Looking at the example of silica sand usage, this has dropped significantly: From 591 metric tons in 2017 (before installation of the recycling system), to just 152 metric tons in 2024. We have indeed met our goal of reducing silica sand consumption.

The amount of bottom ash generated at Guan Tian Plant is primarily related to the composition and sulfur content of the coal. The more impurities present in the coal, the more frequently ash must be discharged and silica sand replenished to maintain bed material quality and furnace bed temperature, leading to increased bottom ash output. In 2024, the amount of bottom ash treated was 4,160 metric tons, and the total coal ash (bottom ash plus fly ash) generated was 22,880 metric tons. Aside from a portion of recyclable Class R coal ash being outsourced to qualified contractors for direct recycling, the vast majority was collected and used to produce Controlled low strength material (CLSM), achieving 100% recycling for reuse.

Guan Tian Plant coal ash output in the past three years: Unit: metric tons

	Coal Ash Output	Remark
2022	21,551	All used to produce CLSM; 100% recycled
2023	22,465	
2024	22,880	

Waste Disposal Methods

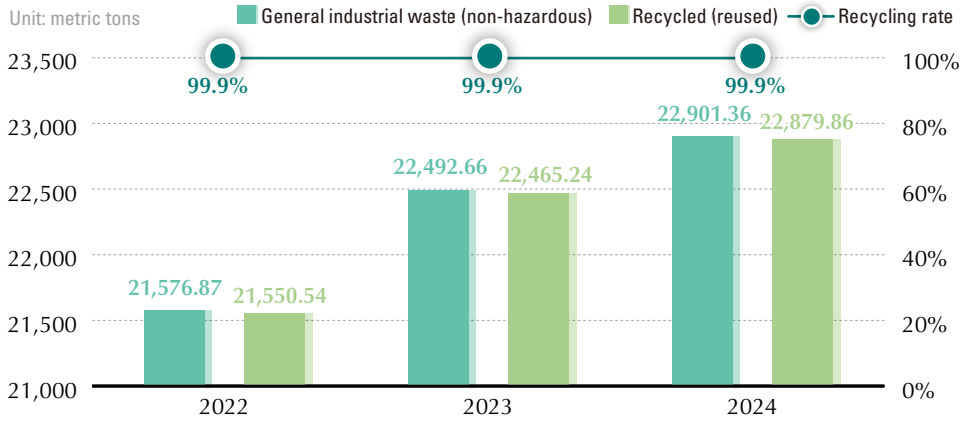
The waste generated by TCC's Guan Tian Plant is classified as non-hazardous waste. This includes inorganic sludge, domestic waste, coal ash, and discarded insulation and refractory materials. The plant recycles reusable coal ash, achieving a recycling rate of over 99.8%. Waste that cannot be reused is handled by authorized contractors in accordance with the Waste Disposal Act. All off-site waste shipments are reported and managed via an online system. To ensure proper disposal, the plant requires contractors to submit a waste treatment completion report for each shipment, which is used to monitor the contractor's follow-up actions and to ensure no environmental harm is caused.

Below is the waste disposal summary for Guan Tian Plant (all waste is non-hazardous):

Unit: metric tons

Waste	Weight		
	2022	2023	2024
Recycling for reuse (Class R, Class D fly ash and bottom ash)	21,550.54	22,465.24	22,879.86
Reuse/other recovery operations	0	0	0
Incineration (including energy recovery) (domestic waste)	1.50	1.20	1.20
Landfill + thermal treatment (sludge)	17.67	19.96	14.14
Other thermal treatment (discarded insulation & refractory materials)	7.16	6.06	6.16
Total Weight	21,576.87	22,492.46	22,901.36

Waste disposal methods for Guan Tian Plant over the past three years



3.2.2 Water Resource Management

GRI 303-3 · 303-4 · 303-5 SASB IF-EU-140a.1 · IF-EU-140a.2 · IF-EU-140a.3

Taiwan faces a shortage of water resources, and water is a critical input in the power generation process for steam turbine units. As such, TCC places great importance on water usage. Through effective management, TCC strives to enhance water use efficiency and minimize unnecessary consumption. In 2022, we established our Water Resource Management Policy as TCC's highest-level guidance on water stewardship. Based on this policy, annual water-saving strategies and consumption reduction targets are set and implemented.

Source of Raw Water

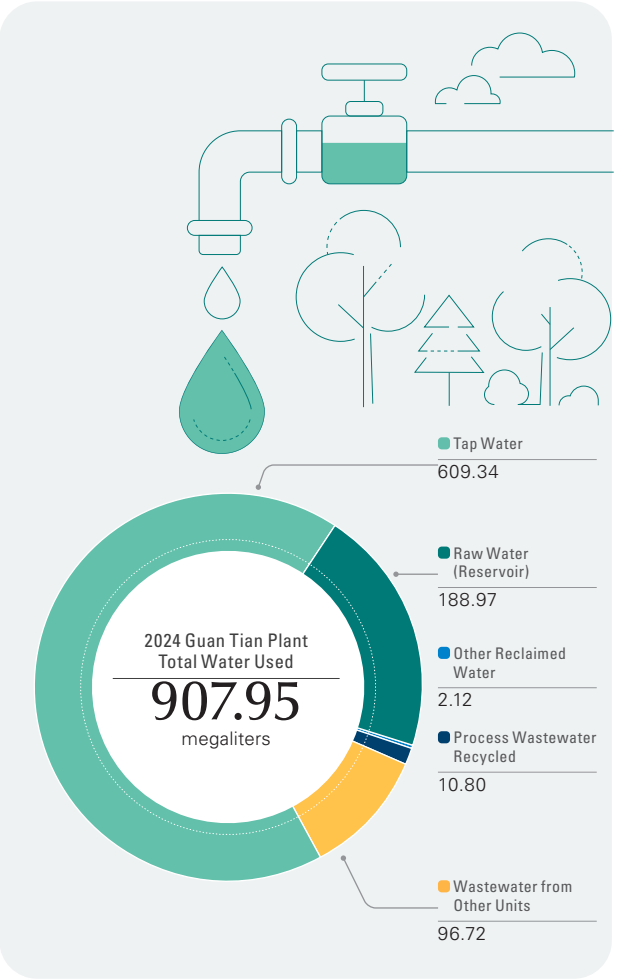
The primary water sources for TCC's Guan Tian Plant are municipal tap water (60–70% of total usage), Wushantou Reservoir (about 22–30%), and internally recycled water or condensate water recovered after steam is sold to customers. All these sources are classified as freshwater. The total water withdrawal at Guan Tian Plant in 2024 was 798.31 megaliters.

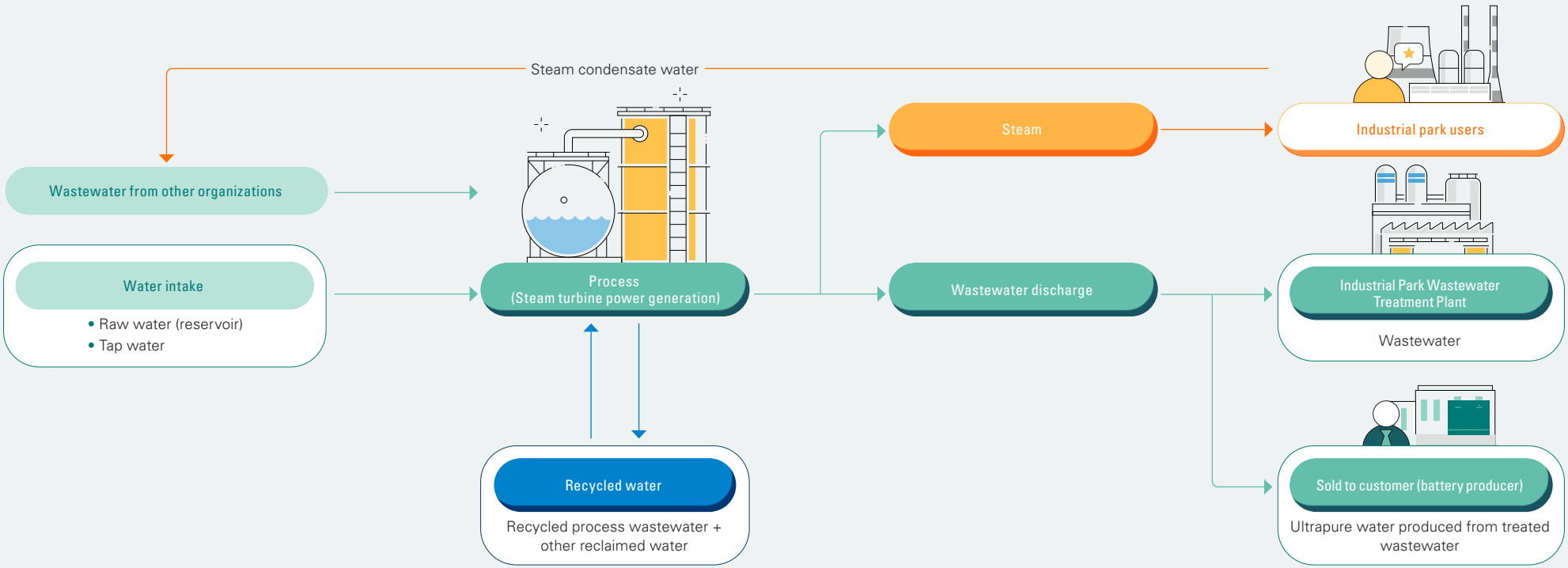
Unit: megaliters

Type	Water source	2022	2023	2024	Calculation/Description
Water Withdrawal	Raw Water (Reservoir)	290.09	210.46	188.97	Meter data recorded daily by the Operation Section
	Tap Water	471.28	550.87	609.34	Meter data recorded daily by the Operation Section
	Total Water Withdrawal	761.37	761.32	798.31	Raw water (reservoir) + tap water
Recycled water	Process Wastewater Recycled	7.46	10.74	10.80	Meter data recorded daily by the Operation Section
	Other Reclaimed Water	1.41	1.90	2.12	1. Water meter 2. Reuse of discharge water for road cleaning
	Total Recycled Water	8.87	12.64	12.92	Recycled process wastewater + other reclaimed water
Other	Wastewater from Other Units	41.21	80.35	96.72	1. Meter data recorded daily by the Operation Section 2. Condensate water recovered from customers in the industrial park used as supplemental cooling tower water
Total Water Used		811.45	854.31	907.95	Total water withdrawal + Total recycled water
Water Discharge		64.13	59.40	60.63	Wastewater + Ultra-pure water sold
Water Consumption		697.24	701.92	737.68	Total water withdrawal – Total water discharge
Recycled Water as % of Total Water Used		1.09%	1.48%	1.42%	Excludes boiler water and internally recirculated cooling water

Note 1: TCC headquarters office does not have a dedicated water meter. Water expenses are allocated based on floor area, so specific usage data is unavailable.

Note 2: TCC's main operating sites draw water from tap water and/or raw water (reservoirs). At Guan Tian Plant, raw water is sourced from Wushantou Reservoir, which is not located in a biodiversity-sensitive or protected area. Water withdrawal constitutes less than 5% of the reservoir's actual supply (approximately 0.16–0.2%), and does not have a significant impact on the local water resource.





Water resource data for Star Energy Power, Sun Ba Power, and Star Buck Power (all three of which are invested in by TCC) is shown in the following table.

Unit: megaliters

Plant	Water Source	2022	2023	2024	Calculation/Description
3 invested gas-fired power plants	Tap Water	168.46	162.44	177.46	Based on water bills or meter readings
	Total Water Withdrawal	168.46	162.44	177.46	
	Process Wastewater Recycled	12.11	11.99	12.19	Annual estimate based on onsite measurements
	Other Reclaimed Water	106.39	105.21	118.05	Based on flow meter readings for irrigation reuse
	Total Water Used	286.97	279.63	307.70	
	Water Discharge	27.82	25.64	18.72	Based on sewage treatment bills
	Water Consumption	140.64	136.80	158.75	Total water withdrawal - Total water discharge
	Recycled Water	118.50	117.19	130.24	
	Recycled Water as % of Total Water Used	41.30%	41.91%	42.33%	

Note: The three invested gas-fired power plants all use freshwater sources and are located in areas classified as low water risk regions.

Water Resource Utilization Cycle in Cogeneration Plant

In a typical cogeneration plant, high-pressure steam produced by the boiler is first used for power generation. Depending on the plant's onsite process heating needs and the required steam pressure levels for steam users, the steam is extracted at different pressure levels (high, medium, and low) to supply high- and low-pressure feedwater heaters, deaerators, heavy oil heaters, and is also sold to customers in industrial areas, thereby improving energy efficiency. Approximately 25% of the steam generated by the boiler is consumed by internal equipment. Except for a small portion lost to vapor leakage, the rest can be recovered through condensation and reused.

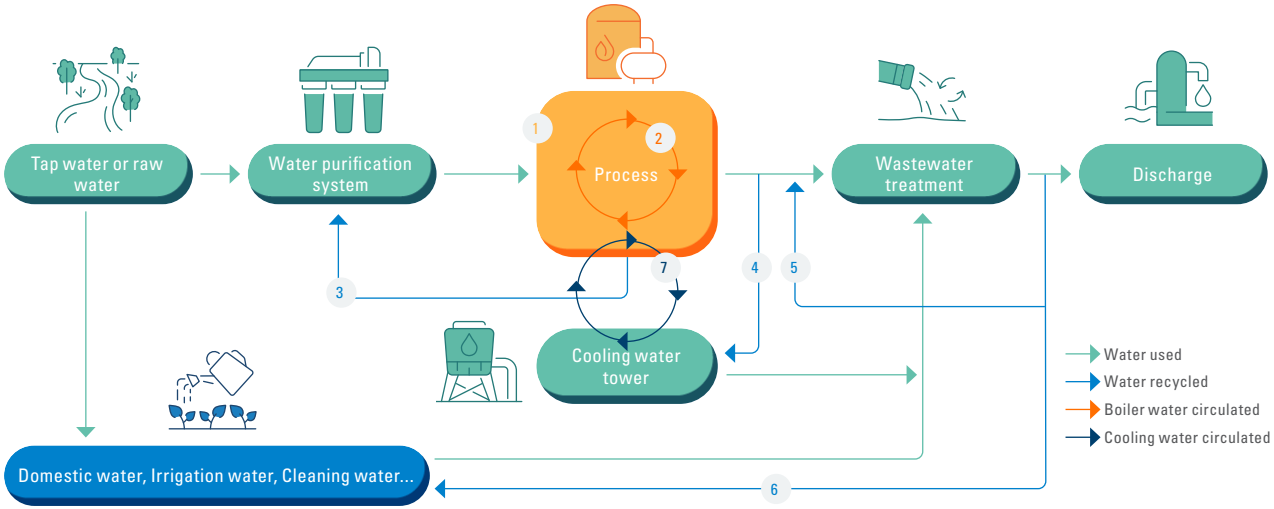
TCC upholds the principle of zero waste and emphasizes water resource recycling. At Guan Tian Plant, in the absence of steam sales, nearly 99% of the steam can be fully reused in the condensation cycle, with no water wasted. When steam is sold to customers, based on the customer's process conditions and the quality of the condensate, the returned process condensate can be reused as supplemental water for the cooling towers. Since condensate quality is better than that of raw water, it not only improves the quality of water in the cooling towers but also reduces raw water consumption. In 2024, approximately 100 megaliters of condensate were recovered. Additionally, around 10.1 megaliters of continuous boiler blowdown wastewater had its heat energy recovered through heat exchangers before being discharged into the cooling tower. This helps improve water quality and indirectly reduces the total volume of wastewater discharged.

Located in the Guantian Industrial Park and classified as a power generation facility, Guan Tian Plant is required to discharge all wastewater into the industrial park's Wastewater Treatment Plant. As most wastewater produced only requires minimal treatment to meet general effluent standards, the plant installed a recycled water pipeline alongside the original effluent pipeline in 2017, gradually increasing the volume of wastewater recycled each year.

In 2024, approximately 53% of Guan Tian Plant's water usage was lost as evaporation in the cooling tower cycle, 40% was sold as steam that was not recovered through condensation, and only about 5% was discharged to the industrial park's Wastewater Treatment Plant after treatment. This demonstrates the plant's efficient and comprehensive utilization of every drop of water.

Water Conservation and Recycling Measures

TCC's Guan Tian Plant, along with Star Energy Power, Sun Ba Power, and Star Buck Power (which TCC has invested in), all place great importance on efficient water resource usage. Each plant continues to implement water-saving and recycling initiatives. For our cogeneration plant and combined cycle gas-fired power plants, the main water conservation and recycling measures are as follows:



1 Process Water Conservation

By fine-tuning unit operations to reduce water consumption—for example, modifying the blowdown tank discharge piping system of the heat recovery steam generator (HRSG) and adding shut-off valves and control systems to prevent steam from accidentally entering the tank and heating it—this reduces the need for cooling water.

2 Increased Boiler Water Recirculation

In boilers, purified water is continuously boiled and can form scale due to high temperatures. Continuous blowdown is required to maintain water quality. By adding treatment chemicals to maintain boiler water quality, the number of allowable recirculation cycles increases, helping to remove boiler sludge, improve efficiency, and reduce boiler water discharge.

3 Sampling Water Recovery

A boiler sampling water recovery system is installed to reclaim sampling water and the pure water used to rinse instruments in the sampling room. After filtration through ion-exchange resin in the water purification system, the recovered water is reused as boiler feedwater.

4 Continuous Blowdown Water Recovery

Boiler condensate and continuous blowdown water, having better quality than raw water, have their thermal energy recovered through heat exchangers before being reused in the cooling tower. This improves the cooling tower's water quality and reduces wastewater discharge.

5 Wastewater Recovery for Blowdown Cooling

The source of cooling water for auxiliary boilers and waste heat boilers is changed: instead of using raw water from the storage tank for cooling, recycled water from the wastewater system is used, thereby reducing consumption of raw water.

6 Post-Treatment Wastewater Recycling

Part of the effluent from the wastewater treatment plant is recovered and reused for purposes such as landscape and plant irrigation within the facility, as well as for coal yard cleaning and dust suppression.

7 Increased Cooling Water Circulation

Cooling towers lose water through evaporation and drift, causing impurities to accumulate and form scale, which affects operation. Frequent blowdown is needed to maintain water quality. By adding treatment chemicals to condition the water and reduce scaling, the cycles of concentration can be increased, thereby reducing the volume of cooling water discharged.

Water Resource Risk Management and Mitigation Measures

The primary water source for TCC's Guan Tian Plant is the local water utility (Taiwan Water Corporation), with a portion supplied from the Wushantou Reservoir through other water suppliers. According to the World Resources Institute (WRI) Aqueduct water risk atlas, the region where Guan Tian Plant is located is classified as a low water risk area. However, considering global climate change and shifts in precipitation patterns, Guan Tian Plant has proactively planned measures to address potential water resource risks. Currently, the plant has a maximum effective water storage capacity of approximately 5.5 megaliters (including all tanks, pools, and cooling towers). Under normal operations and steam supply conditions, the plant's maximum daily water demand is about 2.5 megaliters. In the event of water restrictions such that the water utility could only supply 1.2 megaliters per day, the plant could continue operating normally for 4 days at our maximum water storage and usage. If the water utility completely suspended raw water supply, the plant could maintain normal operations for 2 days. When water rationing measures are implemented by the utility company for industrial users, Guan Tian Plant has developed the following response strategies.

Water supply companies stop providing water (maintain continuous operation for a maximum of 2 days)	1st day after water outage	Generation unit operations unchanged
	2nd day after water outage	The boiler is operated with reduced load, the surplus electricity sold to Taipower is stopped, and the supply of process steam is stopped. According to the terms for natural disaster in the contract, notifies the user for the consideration of shutdown.
Water supply companies can provide more than 1.2 megaliters of water per day to Guan Tian Plant	1st day after water outage	Generation unit operations unchanged
	2nd day after water outage	Depending on the stability of the water supply company, the boiler load will be reduced if necessary to reduce the surplus electricity sold to Taipower.
	3rd day after water outage	Depending on the stability of the water supply company, if necessary, the boiler load will be reduced, and the steam supply of the whole process will be reduced.
	4th day after water outage	Depending on the stability of the water supply company, the surplus electricity sold to Taipower will be stopped, and the supply of process steam will be stopped.
	5th day after water outage	In response to the shortage of water due to droughts, according to the terms of natural disaster in the contract, notifies the users for the consideration of shutdown.

In addition to saving and recycling water during the process of power generation, Guan Tian Plant and the three invested gas-fired power plants also implement water-saving measures for domestic water usage. The results of water-saving and water-recycling measures implemented by each plant are as follows.

	Guan Tian Plant	Star Energy Power	Sun Ba Power	Star Buck Power
Conserve	Add chemicals to control water quality • Cooling water reduced by 1,100 metric tons/day • Boiler water discharge reduced by 1%	Unit adjustment/ recycle sampling water • Process water saving: 19 metric tons/day	Modify the boiler blowdown discharge piping system • Process cooling water saving: 110 metric tons/day	Unit adjustment/ recycle sampling water • Process water saving: 25–30 metric tons/day
Recycle	Change for water pollution prevention • Boiler wastewater recycling: 25 metric tons/day • Effluent recycling: 5 metric tons/day • Wheel-washing pool wastewater recycling: 3 metric tons/day	Recycling blowdown cooling water from wastewater treatment facility /hot wastewater • Wastewater recycling: 90–120 metric tons/day	Recycling discharged wastewater from treatment facility / hot wastewater • Wastewater recycling: 100 metric tons/day	Recycling blowdown cooling wastewater from treatment facility/ hot wastewater • Wastewater recycling: 80–100 metric tons/day

Wastewater Treatment

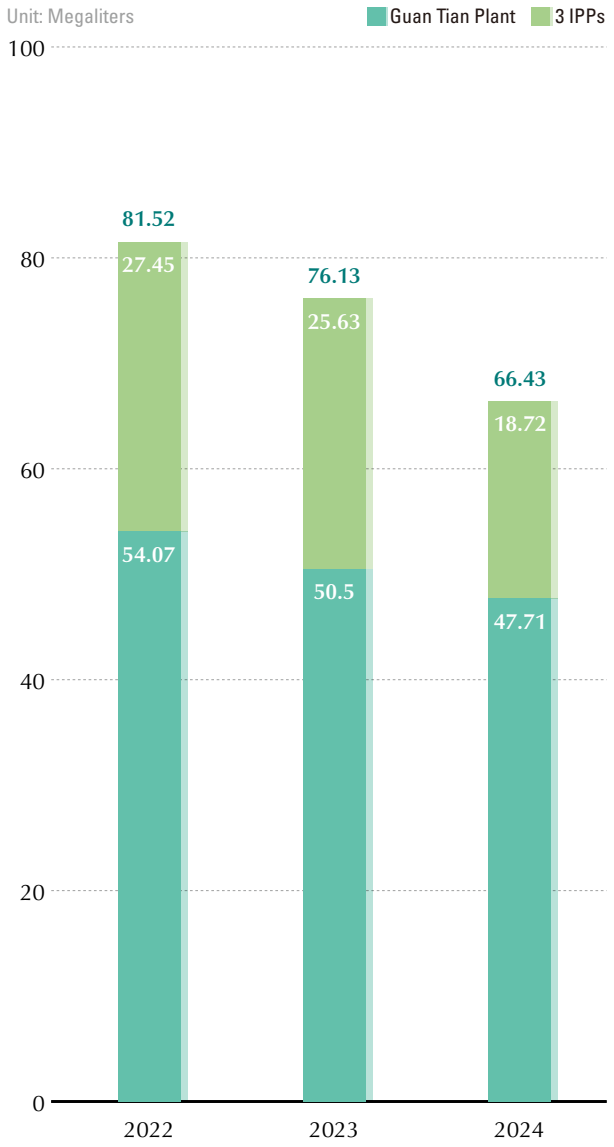
The wastewater generated by Guan Tian Plant primarily originates from the power generation process, and generally has better water quality than in other types of wastewater. To minimize environmental pollution risks, the wastewater is first treated by the plant's internal wastewater treatment facilities and then discharged collectively to the Guantian Industrial Park's Wastewater Treatment Plant. All collected wastewater complies with the park's sewer system discharge standards, making it one of the high-quality sources for the treatment plant.

Star Energy Power, Sun Ba Power, and Star Buck Power each have their own on-site wastewater treatment plants. The wastewater produced at these facilities is treated to meet industrial park water quality and effluent standards. Most of the treated water is reused for irrigation, while the remainder is discharged either in accordance with environmental impact assessment (EIA) commitments or directed to industrial park treatment systems.

Thanks to multiple water-saving measures and recycling initiatives, the volume of wastewater discharged from Guan Tian Plant and the three invested gas-fired power plants has gradually decreased year by year. The 2024 wastewater discharge status and historical discharge data is shown below:

Plant	Wastewater source	Discharge destination	Treatment method	Used by other organizations?	Water volume estimation method	Wastewater discharged (megaliters)	BOD (mg/L)	COD (mg/L)	SS (mg/L)
Guan Tian Plant	Process wastewater	Industrial park's Wastewater Treatment Plant	Wastewater pre-treatment	Industrial park's Wastewater Treatment Plant for centralized management	Water meter	47.71	<1	52.9	41.8
3 Invested Gas-Fired Power Plants	Process/ Domestic wastewater	Industrial park's Wastewater Treatment Plant, streams, etc.	Chemical coagulation and sedimentation/ Biological treatment	Industrial park's Wastewater Treatment Plant for centralized management/ None	Flow meter/ Water meter	18.72	19.25	39.20	9.70

Wastewater Discharge Volume

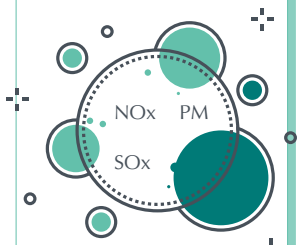


3.2.3 Air Pollution Prevention and Control GRI 305-7 SASB IF-EU-120a.1

TCC's Guan Tian Plant is designed as a cogeneration unit using coal and scrap tires as fuel. Its primary air pollutants include nitrogen oxides (NOx), sulfur oxides (SOx), and particulate matter (PM). These emissions are controlled through dry desulfurization, denitrification equipment, and electrostatic precipitators (ESPs). TCC complies with the Management Guidelines for Stationary Pollution Source Air Pollution Continuous Emissions Monitoring Systems to ensure that its related hardware and software systems meet the latest regulatory requirements. In 2022, the plant formally activated our data acquisition system that complies with the latest version of the Guidelines, and we continue to perform regular software updates.

Regulatory emission standards and average emissions for the Guan Tian Plant are as follows:

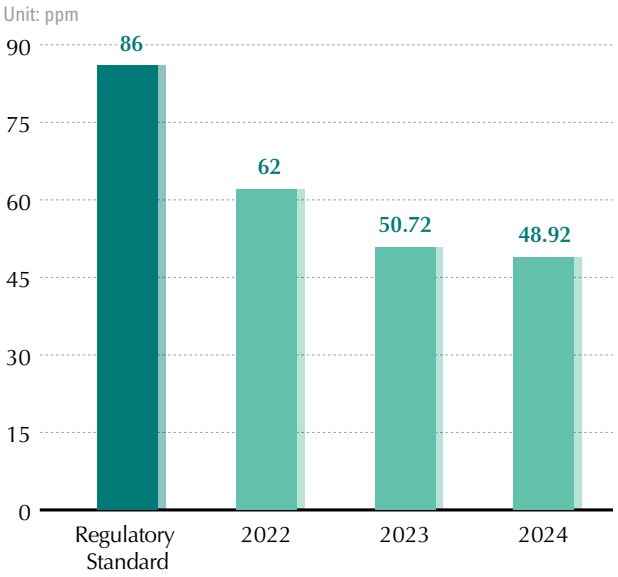
In 2024, average emission of sulfur oxides (SOx) was 48.92 ppm; for nitrogen oxides (NOx) was 78.74 ppm; and for particulate matter (PM) was 2.75 mg/Nm^3.



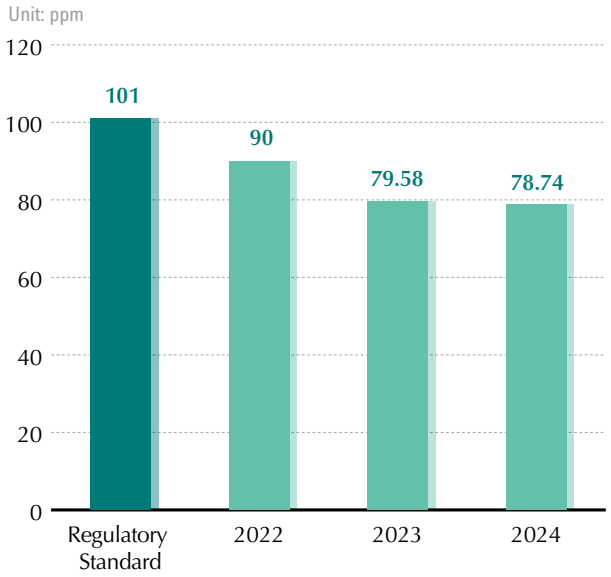
Unit: kg

Guan Tian Plant	2022	2023	2024	Calculation method and coefficient source
Sulfur oxides (SOx)	193,820	207,900	188,940	Based on formula for air pollution fee and declared amount
Nitrogen oxides (NOx)	191,940	231,850	214,470	
Particulate matter (PM)	10,648	2,428	3,571	
Total	396,408	442,178	406,981	
3 invested gas-fired power plants	**2022**	**2023**	**2024**	**Calculation method and coefficient source**
Sulfur oxides (SOx)	17,143	16,648	22,970	Based on the formula for air pollution fee and the declared amount
Nitrogen oxides (NOx)	1,156,257	1,018,063	1,039,934	
Particulate matter (PM)	42,905	36,718	42,299	
Total	1,216,305	1,071,429	1,105,203	

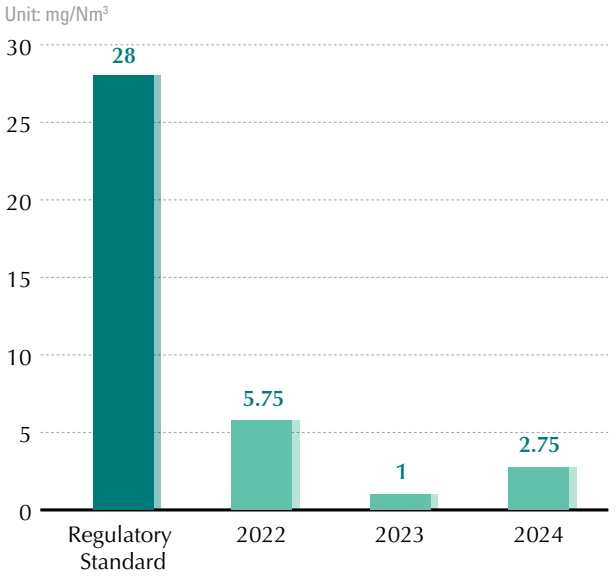
Sulfur Oxides (SOx)



Nitrogen Oxides (NOx)



Particulate Matter (PM)



3.2.4 Biodiversity

At the 15th Conference of the Parties to the Convention on Biological Diversity (COP 15), the Kunming-Montreal Global Biodiversity Framework (or "GBF") was jointly adopted, setting global biodiversity targets for 2030 and 2050. The framework outlines four long-term goals and 23 global action targets. It specifically stipulates that by 2030, at least 30% of terrestrial, inland water, coastal, and marine areas must be conserved. In addition, it calls for the promotion of ecological restoration, pollution reduction, and sustainable resource management, with the overarching vision of "Living in Harmony with Nature" by 2050. TCC refers to Targets 15, 7, and 9 of the GBF and commits to minimizing biodiversity impacts throughout our operations, actively fulfilling our responsibility to conserve biodiversity.

Strategic Objectives

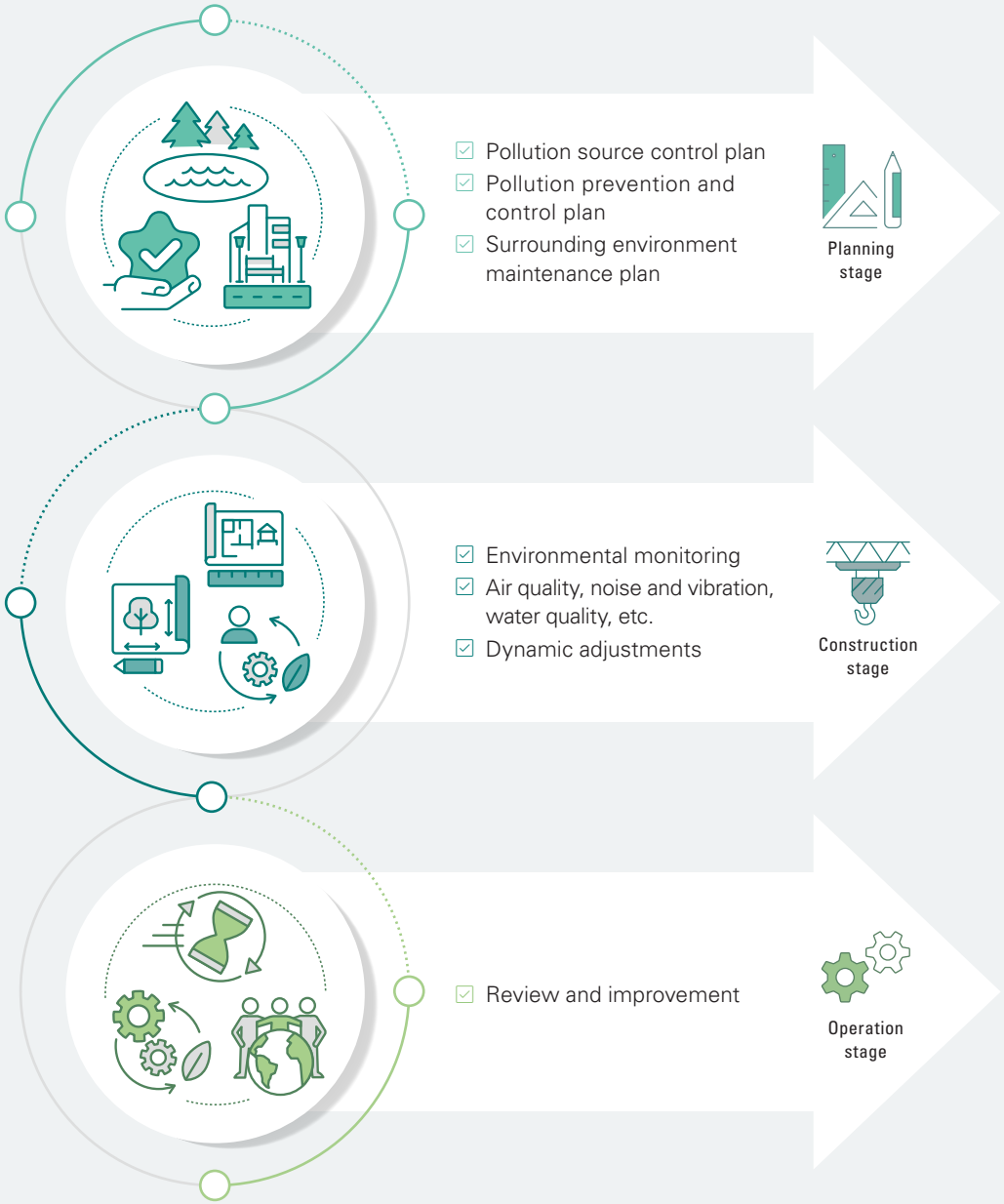
Policy and Commitment

Upholding the principle of achieving mutual benefits across energy, ecology, and society, TCC aims to balance the promotion of national renewable energy development with the protection of local ecological environments. In implementing renewable energy projects, we adhere to the principles of impact avoidance, mitigation, ecological conservation, and ecological compensation.

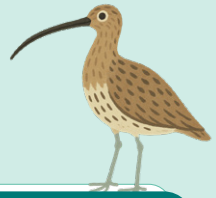
Guidelines and Strategies

Throughout the development and operation of each project, TCC remains committed to the principles of avoidance, impact mitigation, and ecological compensation. We carefully assess local environmental and ecological characteristics and implement appropriate planning and corresponding measures to minimize impacts on biodiversity.

From the application stage through to construction and operation, we continuously monitor and manage ecosystems. Based on the monitoring results, we make adjustments to minimize environmental impacts, maintain regional environmental quality, preserve surrounding ecosystems, and ensure compliance with environmental protection regulations, all in support of local prosperity and environmental enhancement.



Environmental Assessment



Eurasian Curlew

National Class III Protected Species

The Yongxing Aquaculture Zone in Fangyuan, Changhua, is a critical stopover habitat for the Eurasian Curlew during its migratory passage and is classified as a highly ecologically sensitive area.

- Our subsidiary, Hamaguri, has committed to ensuring that its solar photovoltaic development zone avoid the Eurasian Curlew's activity hotspots and preserve their roosting habitats. Since 2020, Hamaguri has been conducting ongoing bird ecology surveys as well as water and sediment heavy metal measurements. Hamaguri has also committed to establishing an ecological conservation demonstration zone to preserve waterbird roosting areas.

Class II Protected Species

Little Tern

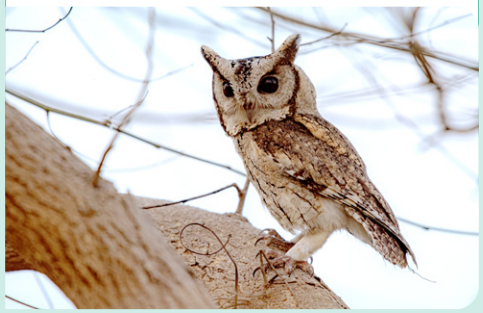
The Little Tern is a rare and valuable Class II protected bird species. It breeds annually from April to July on the Rouzongjiao Beach.

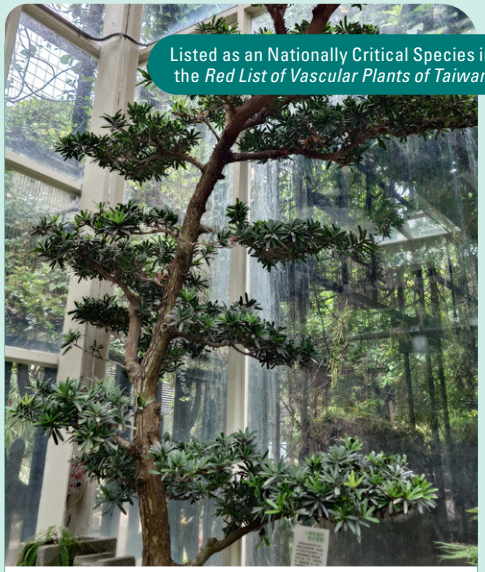
- Prior to project development, subsidiary Star Energy established an environmental protection strategy and has since outsourced monthly environmental audits and guidance. During construction, low-vibration equipment was used, machinery met Phase III or higher emission standards or was equipped with particulate filters, and precast construction methods were adopted for major structures. Vehicle movement during construction was restricted to approved routes to minimize the environmental impact from transportation, material use, noise, and vibration.

Collared Scops Owl

Class II – Rare and Valuable Protected Species

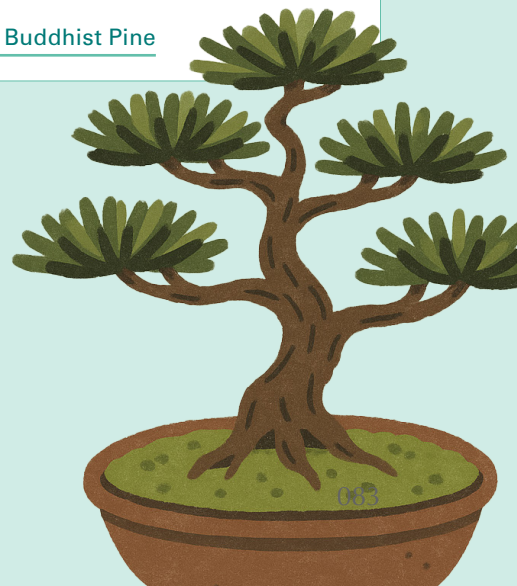
- In the Sun Ba Power Phase II Project, ecological protection measures were implemented, including the designation of a conservation area on the southern side and the installation of artificial nest boxes as a habitat compensation for the collared scops owl. To ensure public safety and minimize impact on the conservation area south of the gas-fired power plant, lighting facilities were reduced and fitted with directional (convergent) lighting fixtures. In the plant's greenbelt, only native tree species were planted, complemented by shrubs and turf to create multi-layered vegetation. These efforts were assessed to have minimal impact on terrestrial wildlife.

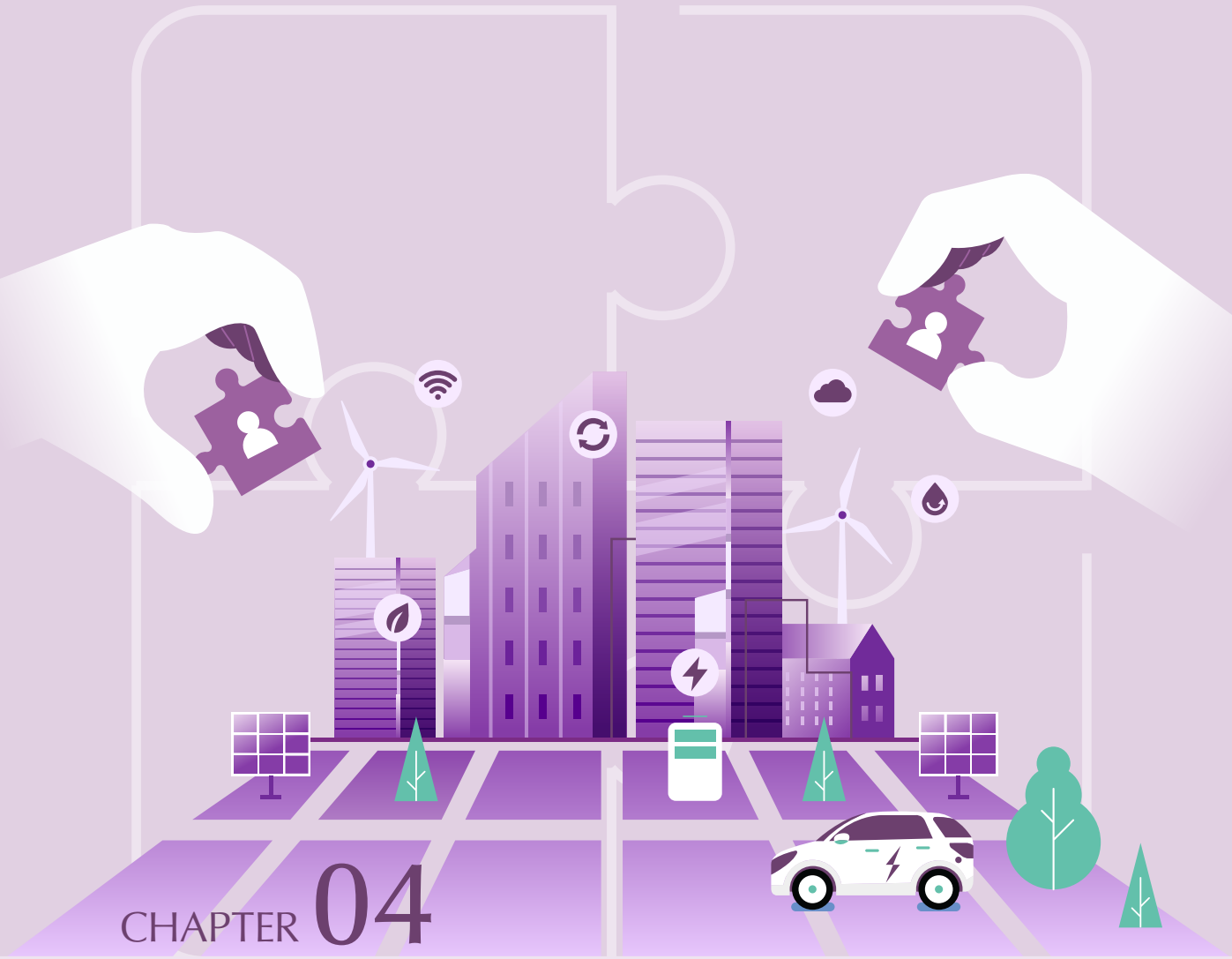




Listed as an Nationally Critical Species in the *Red List of Vascular Plants of Taiwan*

Lanyu Buddhist Pine





CHAPTER 04

Talent Cultivation, Friendly Workplace

Material Topics

- Occupational Safety and Health
- Talent Cultivation and Development

Goals

Implementing human rights protection and inclusion

Hazard identification and risk assessments for workplace misconduct

New employee care programs

Providing employees with a safe, high-quality, and comfortable working environment

Implement ISO 45001 Occupational Health and Safety Management System efficiently

Striving for 0 workplace injuries

Making 5 or more key occupational safety and health improvements

Putting occupational safety and health training in place

Building a key talent pool

In 2025, average ≥30 training hours/person for managers

Average ≥40 training hours/person for general employees

Put employee rotation programs in place

Performance

Healthy Workplace

Guan Tian Plant

Conduct occupational safety and health (OSH) education and training for current employees, and a 3-hour OSH training for new employees.

0 work-related injuries in over 1,270,000 hours since the plant was established

Outstanding Performance Award in the Occupational Safety & Health Family Assessments, for the 5th year in a row

Taipei Office

Provided individual consultations and health education sessions to 38 employees

Talent cultivation

Average training for managers: 29.75 hours/person

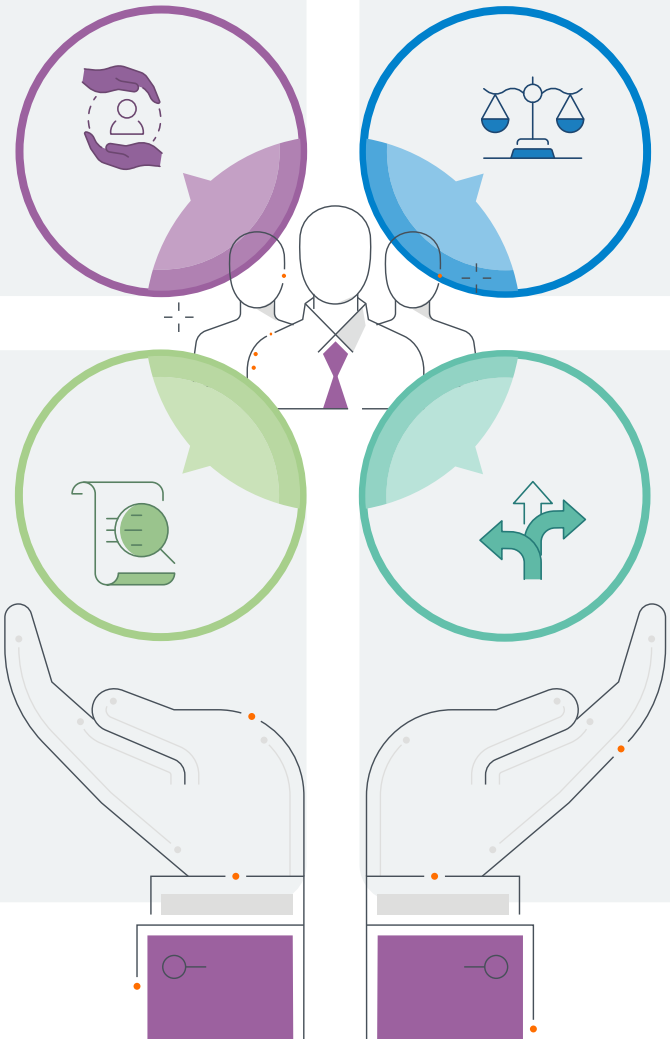
Average learning for general employees: 67.06 hours/person

4.1 Talent Management and Development

4.1.1 Human Resources Policy GRI 2-23、2-24

Respecting Employee Rights

- Fostering an ethical management-oriented corporate culture.
- Providing a work environment where employees can fully utilize their talents.
- Allowing employees to take unpaid parental leave.
- Ensuring gender equality in employment rights.
- Prohibiting gender discrimination and unequal treatment, including in recruitment, employment, performance evaluation, promotion, training, welfare, and pay for work of equal value.
- Committing to international human rights conventions, including the Universal Declaration of Human Rights (UDHR), the UN Guiding Principles on Business and Human Rights (UNGPs), the International Covenant on Civil and Political Rights (ICCPR), and the International Covenant on Economic, Social and Cultural Rights (ICESCR).



Fair Treatment and Equal Opportunities

- Adhering to principles of fairness and impartiality in employment practices.
- Ensuring that factors such as race, nationality, place of birth, appearance, age, gender, sexual orientation, religion, political views, disability, pregnancy, and marital status do not lead to differential treatment in opportunities for employment, compensation, benefits, evaluations, promotions, or training.
- Strengthening human resources management through policies including the Human Resources Management Regulations; Employee Compensation Regulations; Work Assessment Implementation Guidelines; Promotion and Selection Regulations; Human Resources Arbitration Committee Regulations; and the Workplace Sexual Harassment Prevention, Complaint, and Disciplinary Policy.

Legal Compliance

- Complying with labor laws, including hiring the legally required number of persons with disabilities.
- Establishing a Code of Ethical Conduct that prohibits any form of discrimination based on gender, race, religion, political affiliation, sexual orientation, job level, or age.
- Formulating the Personal Data Protection and Management Regulations to safeguard collection, processing, and use of employees' personal data while avoiding violations of personal rights and ensuring reasonable data use.
- Publicly disclosing our Workplace Sexual Harassment Prevention, Complaint, and Disciplinary Policy to reaffirm our opposition to sexual harassment. The policy also includes publicly-accessible complaint and reporting procedures, to make sure employees and job seekers are free of harassment. The Policy lays out in specific, detailed regulations what our preventive, investigative, corrective, and disciplinary measures are, as well as the duty to report to regulatory authorities.

Diverse Channels for Harmonious Communication

- Striving to build and maintain harmonious labor relations.
- Establishing open communication channels to protect and respect employees' human rights and labor rights, including creating a TCC Suggestion Box for internal communication. This all encourages positive interaction between employees and the Company, and fosters a harmonious work environment.
- Holding quarterly labor-management meetings to discuss labor relations, working conditions, employee welfare, and more.
- Posting announcements to reinforce our prohibition of sexual harassment and TCC's policy against discrimination based on sexual orientation; and making sure that employees in same-sex marriages receive equal benefits. All this promotes harmony in labor relations while supporting corporate growth.
- Surveying employees every year about satisfaction with company policies, to make sure employees get to share everything that's on their minds. In 2024, the survey had a response rate of 89%, with an overall satisfaction score of 4.67 out of 5. This shows significant progress in enhancing employee welfare and the work environment.

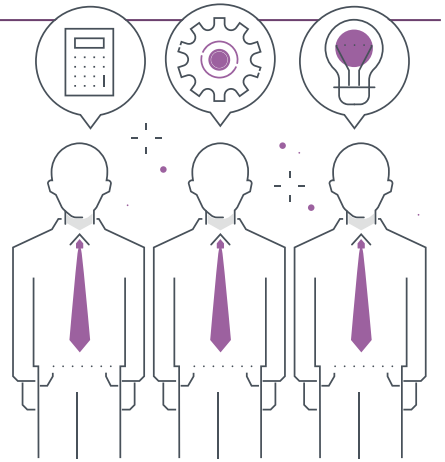
4.1.2 Employee Composition GRI 2-7、2-8、401-1、405-1

Organizational Profile

All of TCC's operating sites are located in Taiwan, and the Group is committed to localizing talent, employing nearly 100% local (Taiwanese) staff. As of the end of 2024, TCC had 146 personnel, including 128 full-time employees and 18 non-employees. Star Energy had 216 personnel, including 212 full-time employees and 4 non-employees. Over the past three years, total employee numbers have remained relatively stable.

Diversity Promotion

TCC employees are on average about 45 years old, and have worked for TCC for an average of 12.78 years. Employees 30 years or older account for 87.5% of the workforce. 95% of employees hold a college degree or higher; most employees have at least a college-level education, hold specialized certifications, and have many years of practical experience in the power and engineering sectors. However, due to the characteristics of the power industry and the specific technical orientations of power plant operations, there is a gender imbalance, especially the higher proportion of male employees at Guan Tian Cogeneration Plant.



Workforce Structure – Distribution by Employment Contract Type

Nationality	Gender	Employment Contract			Employment Type		
		Regular	Contract	Total	Full Time	Part Time	Non-Employee
TCC							
Local	Male	84	0	84	84	0	13
	Female	44	0	44	44	0	3
Foreign	Male	0	0	0	0	0	0
	Female	0	0	0	0	0	2
Total		128	0	128	128	0	18

Nationality	Gender	Employment Contract			Employment Type		
		Regular	Contract	Total	Full Time	Part Time	Non-Employee
Star Energy							
Local	Male	112	47	159	157	0	2
	Female	36	17	53	53	0	2
Foreign	Male	0	0	0	2	0	0
	Female	0	0	0	0	0	0
Total		148	64	212	212	0	4

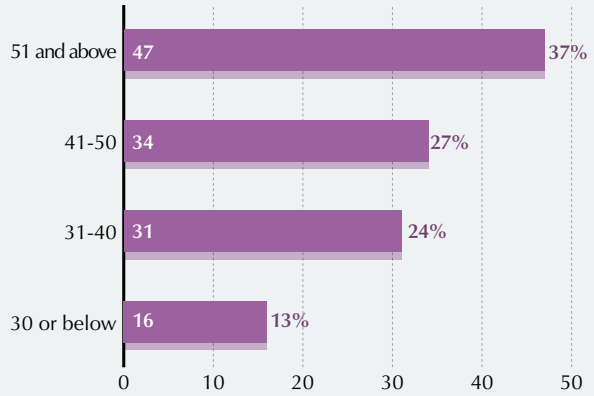
Note 1: This year, the employment category "Contractor (Supplier Worker)" has been revised to "Non-Employee". This is defined as dispatched personnel from contract suppliers on fixed-term assignments, including roles such as cleaning and security.
Note 2: The Company does not employ non-guaranteed hours employees.

Workforce structure – distribution by age, and position for different regions and genders

By age

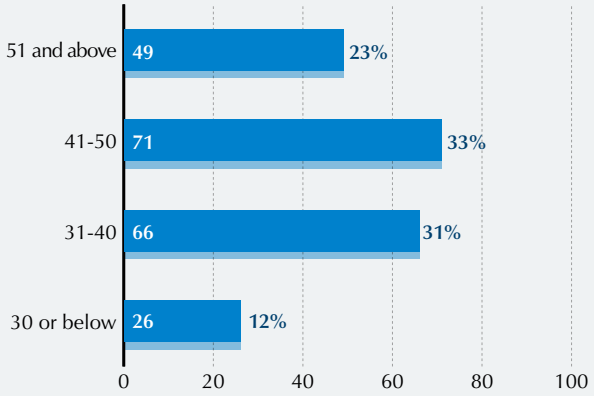
TCC

Unit: Number of Employees



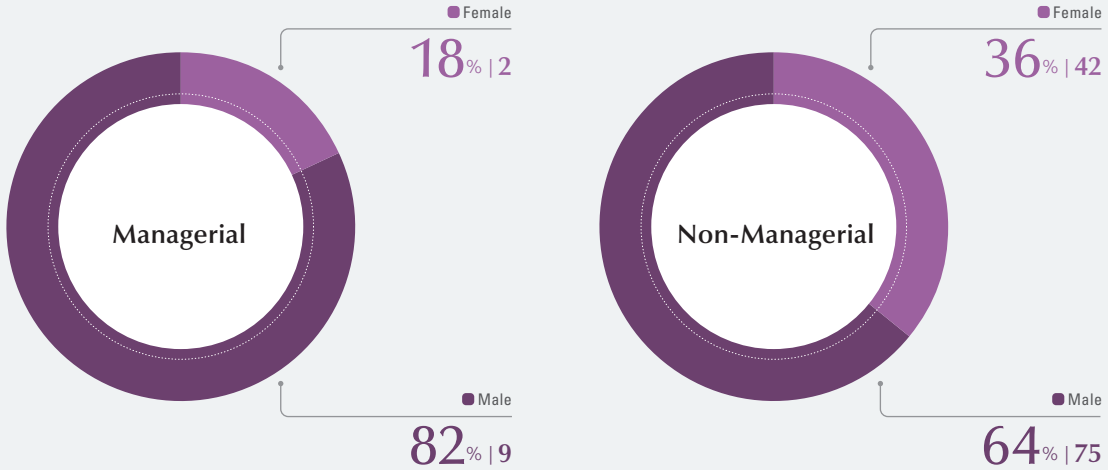
Star Energy

Unit: Number of Employees

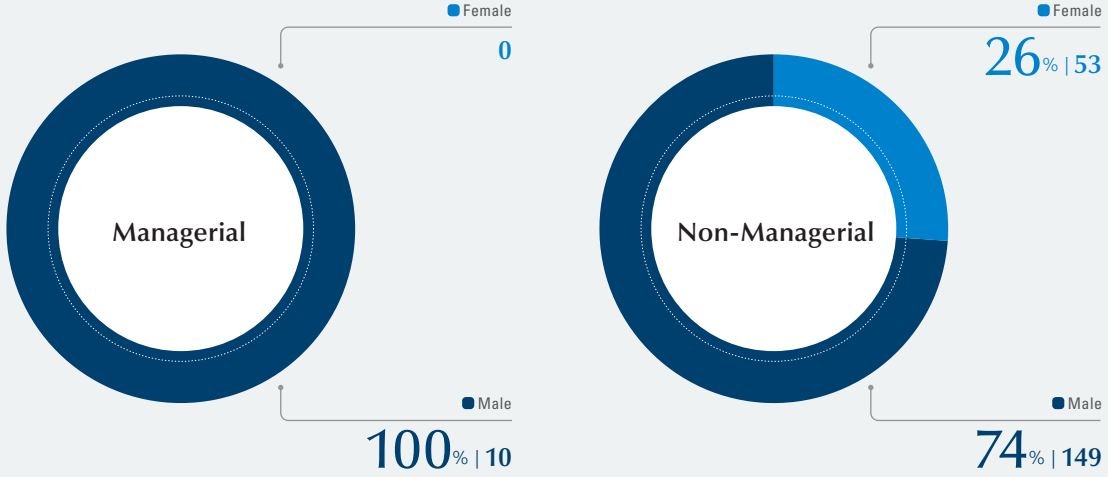


By position

TCC



Star Energy



New Employee Hires and Departures

TCC recruits talent through two main channels: internal (promotions, transfers, internal job postings), and external (employee referrals, job postings including online ads, and employment agencies). We prioritize hiring local workers in external recruitment, with selection based on qualifications, knowledge, experience, integrity, and work attitude. In 2024, TCC hired 9 new local employees.

TCC	Age				Total
	30 or below	31–40	41–50	51 and above	
New male hires	2	2	0	1	5
New female hires	2	2	0	0	4
New male hires as proportion of all employees	1.56%	1.56%	0%	0.78%	3.91%
New female hires as proportion of all employees	1.56%	1.56%	0%	0%	3.13%

Star Energy	Age				Total
	30 or below	31–40	41–50	51 and above	
New male hires	10	8	9	13	40
New female hires	3	3	2	1	9
New male hires as proportion of all employees	4.72%	3.77%	4.25%	6.13%	18.87%
New female hires as proportion of all employees	1.42%	1.42%	0.94%	0.47%	4.25%

TCC provides a range of welfare policies and a comfortable, friendly working environment. With our harmonious labor relations, the employee retention rate remains high.

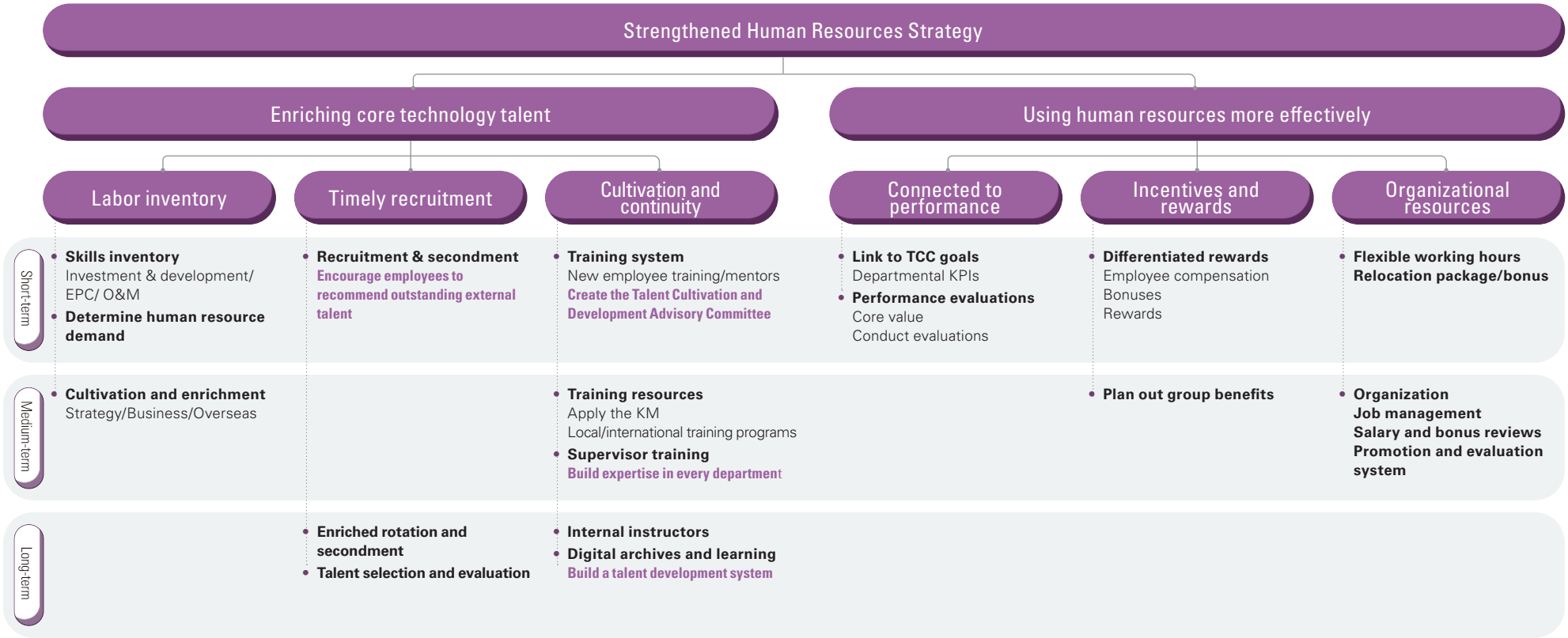
TCC	Age				Total
	30 or below	31–40	41–50	51 and above	
Male departures	1	0	1	4	6
Female departures	0	0	0	1	1
Male turnover rate	0.78%	0%	0.78%	3.13%	4.69%
Female turnover rate	0%	0%	0%	0.78%	0.78%
Total employee departures					7
Overall employee turnover rate					5.47%

Note: TCC's turnover rates from 2022 to 2024 (including retirement and job transfers within the Group) were 7.69%, 11.11%, and 5.47%, respectively.

Star Energy	Age				Total
	30 or below	31–40	41–50	51 and above	
Male departures	5	10	10	19	44
Female departures	2	5	6	0	13
Male turnover rate	2.36%	4.72%	4.72%	8.96%	20.75%
Female turnover rate	0.94%	2.36%	2.83%	0%	6.13%
Total employee departures					57
Overall employee turnover rate					26.89%

4.1.3 Talent Cultivation GRI 2-19、2-20、2-21、404-1、404-3

TCC firmly believes that employees are our most valuable asset. To enhance our human resource management, we have developed a talent development plan aligned with our corporate strategy, building a systematic human resource strategy and planning framework, and providing specialized training courses to match specific job requirements. Our short-, medium-, and long-term development plans are illustrated in the following diagram.



Key Human Resource Development Priorities in 2024

Strengthening talent cultivation and development

The TCC Talent Cultivation and Development Advisory Committee was established in 2022 to oversee plans or projects such as key talent development plan, management training program, and training effectiveness. TCC uses diverse training methods to create organizational value. In 2024, TCC maintained our talent management focus by launching mid- to senior-level leadership development programs, core workforce training programs, and internal competency-based training programs. Management competency training was also enhanced for employees at the chief level and higher. In addition, TCC continued to promote digital learning platforms to improve employees' specialized skills and competitiveness. In 2024, average learning (including both digital and in-person courses) was 29.75 hours for managers, 38.9 hours for junior management, and 67.06 hours for general employees.

Succession planning for middle and senior management

TCC's Vice Presidents and department/office heads are all promoted through a structured Middle and Senior Management Development Program. Senior management also rotates through different functions to gain experience in project planning, engineering management, operations and maintenance, and financial analysis before assuming executive roles. This comprehensive training approach is designed to make sure that future leaders possess cross-disciplinary knowledge, innovative thinking, and a global perspective.

Middle and Senior Management Development Program

Job rotation training

TCC has established a job rotation plan for supervisors at the department level and higher (including the President and Vice Presidents). In addition to their core specialties, supervisors gain experience in domains such as investment and development, engineering management, finance, subsidiary management, and administrative operations. This cultivates multi-dimensional management competencies, decision-making skills, and interdepartmental collaboration, all helping make sure that future leaders have the tools to succeed at their jobs.

Competency training

Each year, we offer diverse learning opportunities ranging from in-person courses to digital programs and self-directed learning. Topics include leadership and management, industry trends, sustainable development, and ethical management.

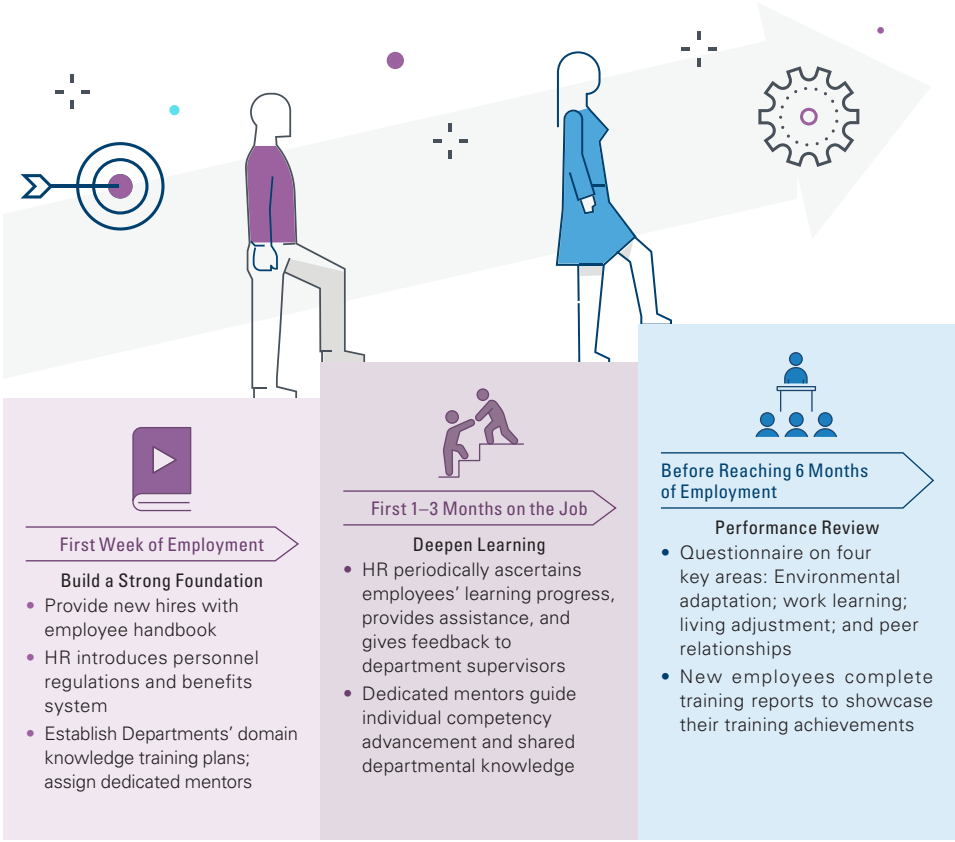
Enhancing recruitment and redundancy/mentoring mechanisms

With the Group's continued growth, the demand for specialized talent is also increasing. To meet this need, we are building diverse recruitment channels that include online job postings, internal referrals, campus recruitment, and scholarship programs.

TCC continues to implement our Refined Redundancy/Mentoring Mechanism. In accordance with the Employee Performance Evaluation Regulations, employees who do not meet performance standards are required to submit a performance improvement report and undergo regular follow-up assessments. If the expected improvements are not achieved, the redundancy process is initiated to enhance TCC's overall competitiveness.

Implementing new employee training and care mechanisms

In addition to strengthening recruitment efforts, talent retention is a key priority. To help new employees adapt to the work environment, TCC provides onboarding courses that introduce company benefits, rules, and regulations. Each new employee also completes required occupational safety and health (OSH) training. Subsequently, each hiring department establishes a customized training plan for new hires, setting learning objectives and improving job-related skills. Through a mentorship system, senior employees are assigned to guide new hires one-on-one, helping them integrate into the corporate culture while offering specialized advice and support. During an employee's first six months with TCC, we regularly check on their physical and mental well-being, provide the employee with anonymous psychological counseling services, and do employee satisfaction and mental health surveys. Based on the results, TCC offers appropriate employees support to strengthen their expertise and reduce turnover rates.



2024 Human Resources Training Program Implementation Results

Training Hours for Managers and Employees

TCC	Male			Female		
Training hours	Total hours	Total persons	Average hours/ person	Total hours	Total persons	Average hours/ person
Managers	230.49	9	25.61	96.71	2	48.36
Junior management	741.87	17	43.64	269.65	9	29.96
General employees	3,970.49	58	68.46	2,131.94	33	64.60
Total	4,942.85	84	58.84	2,498.30	44	56.78

Star Energy	Male			Female		
Training hours	Total hours	Total persons	Average hours/ person	Total hours	Total persons	Average hours/ person
Managers	15	10	1.50	0	0	0
Junior management	449	58	7.74	104.5	7	14.93
General employees	1,436	91	15.78	695	46	15.11
Total	1,900	159	11.95	799.5	53	15.08

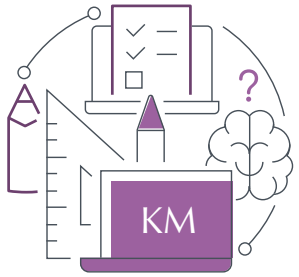
Training by Type

TCC	Total persons			Total hours
	Male	Female	Total	
Management competency training for middle and senior management	99	61	160	480
Friendly workplace training	61	15	76	89.5
Professional skill education	33	49	82	631
General education training	76	47	123	353
Information security training	242	137	379	835
Language training	62	135	197	295.5
Digital online learning	84	41	125	4,736.2
License renewal training	1	2	3	21

Star Energy	Total persons			Total hours
	Male	Female	Total	
Professional skill education	13	12	25	192.5
License renewal training	81	32	113	2,507

Cultivation and Continuity: Knowledge Management Platform

Since we rolled out TCC Group's Knowledge Management (KM) platform in 2017, we have integrated it into our daily operations. The platform serves as a tool to share and internalize specialized knowledge related to cogeneration, invested power plants, as well as power and renewable energy engineering technologies. The platform also facilitates sharing, retention, discussion, and transmission of operational, maintenance, and power plant management experiences within TCC.



Performance Evaluations

Performance evaluation and compensation principles for employees and managers (including the President and Vice Presidents)

The weighting of departmental key performance indicators (KPIs), annual goals for senior managers, and individual performance scores are adjusted annually based on needs. Moving forward, departmental performance will be weighted more strongly in individual evaluations, to encourage teamwork and collective growth, and to align with TCC's sustainable performance indicators.

Performance evaluation	Compensation principles for employees and managers (including the President and Vice President)
Company goals and performance evaluations Every year, we establish performance evaluation criteria based on TCC's overall goals for the year. We then assess employee and manager achievement of those criteria. **Who gets evaluated / Evaluation criteria** President and Vice Presidents: Annual performance goals for senior managers Managers: Achievement of departmental key indicators General employees: Individual job performance results	**Performance bonuses: Calculated based on performance evaluation results; divided into management and employee bonuses.** 1. Management bonuses: Based on achievement of the year's EPS budget. The bonus is determined by multiplying the performance evaluation score by a compensation weight, and the result is issued as a proportion. 2. Employee bonuses: Issued in accordance with the performance evaluation score mentioned above, annual employee performance scores, and the corresponding salary weighting.
Employee performance evaluations Employee performance evaluations are divided into regular assessments (every half-year) and annual assessments. Regular assessments are carried out by supervisors every six months, and are based on the employee's work performance. Any significant outstanding or unsatisfactory behavior must be documented, and a communication meeting with the employee must be conducted. These assessments serve as important references for the annual performance evaluation.	

Note: TCC adopts a differentiated management system. Employees who score 70 or less in their annual performance evaluation will not receive performance bonuses or employee rewards. A review and improvement mechanism are implemented for underperformers to enhance overall competitiveness.

Annual performance goals for senior managers

To keep management's focus on the totality of business operations and sustainable development, TCC links the salaries and remuneration of the President and Vice President to ESG indicators. Role-specific ESG targets are included in their annual performance objectives. Evaluation criteria include financial metrics, operational management, sustainability performance, corporate governance, and stakeholder engagement. Through senior managers' supervision of TCC's sustainability strategies and initiatives, effective implementation of sustainability goals is ensured.

Evaluation criteria	Weighting	Description
Financial metrics	20%	TCC's financial performance (EPS, ROE, revenue performance, budget achievement rate, etc.)
Operational management	25%	Supervision of company operations 1. Power plant operation management: Improving operational efficiency and fuel substitution rate. 2. Investment operations management: Overseeing operations of existing gas-fired power plants and other invested companies. 3. Supervising business operations in investment & development, engineering project contracting, O&M, and renewable electricity retailing. 4. Coordinating implementation across departments to ensure business continuity.
Sustainability performance	30%	Overseeing planning and implementation of TCC's sustainability strategies 1. Compiling sustainability reports and disclosing related information. 2. Responding to climate-related risks and opportunities. 3. Planning and promoting greenhouse gas management across the Group. 4. Green procurement and sustainable supply chain management. 5. Promoting digital transformation and information security initiatives.
Corporate governance	10%	Supervising promotion of corporate governance, ethical management, and risk management initiatives; establishing continuous improvement mechanisms to strengthen corporate governance.
Stakeholder engagement	15%	Hosting investor conferences and maintaining effective communication with stakeholders (e.g., shareholders, institutional investors, media) to ensure accurate disclosure of business and material information.

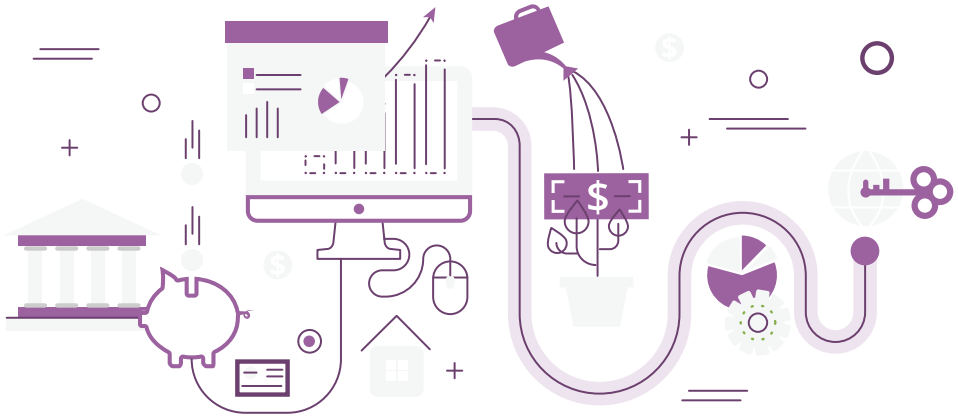
TCC	Male			Female		
Employee performance evaluation	Persons receiving evaluation	Total persons	Proportional evaluation rate	Persons receiving evaluation	Total persons	Proportional evaluation rate
Managers	9	9	100.00%	2	2	100.00%
Non-managerial employees	75	75	100.00%	42	42	100.00%
Total	84	84	100.00%	44	44	100.00%

Note: This table includes periodic contract employees. The number of persons receiving performance evaluations includes those who had departed as of December 31, 2024 but who were still eligible for evaluation and bonuses. The number of persons not receiving performance evaluations includes those who were still on the job on December 31, 2024 but who did not require or were not eligible for evaluation. Therefore, the number of people who were subject to performance evaluation may be more than the number of employees who were still on the job at the end of the year.

Star Energy	Male			Female		
Employee performance evaluation	Persons receiving evaluation	Total persons	Proportional evaluation rate	Persons receiving evaluation	Total persons	Proportional evaluation rate
Managers	11	11	100.00%	0	0	0%
Non-managerial employees	142	150	94.67%	51	54	94.44%
Total	153	161	95.03%	51	54	94.44%

Note 1: This table includes periodic contract employees. The number of persons receiving performance evaluations includes those who had departed as of December 31, 2024 but who were still eligible for evaluation and bonuses. The number of persons not receiving performance evaluations includes those who were still on the job on December 31, 2024 but who did not require or were not eligible for evaluation.

Note 2: Some periodic contract employees were not eligible for evaluation; therefore, they were not included in the total number of people receiving the evaluation.



Average Employee Salary Adjustment in 2024

Our employees' salaries grow primarily based on promotions in position or rank, supplemented by regular salary adjustment. Promotions to higher positions come with greater responsibilities and corresponding salary increases, motivating employees to create greater value. We evaluate salaries on a yearly basis, reviewing factors such as TCC's profitability level, labor market changes, and overall economic indicators. The Company adjusts each employee's salary regularly based on their performance, with more favorable salary adjustments for those in lower ranks to motivate high performers and entry-level employees. The average salary adjustment for 2024 was about 7.97%

Salary adjustment for non-managerial employees (%)	Salary adjustment for managerial employees (%)	2024 average salary adjustment (%)
8.15%	5.79%	7.97%

Note: Managerial staff in the above table include the President, Vice President, and Finance Department manager.

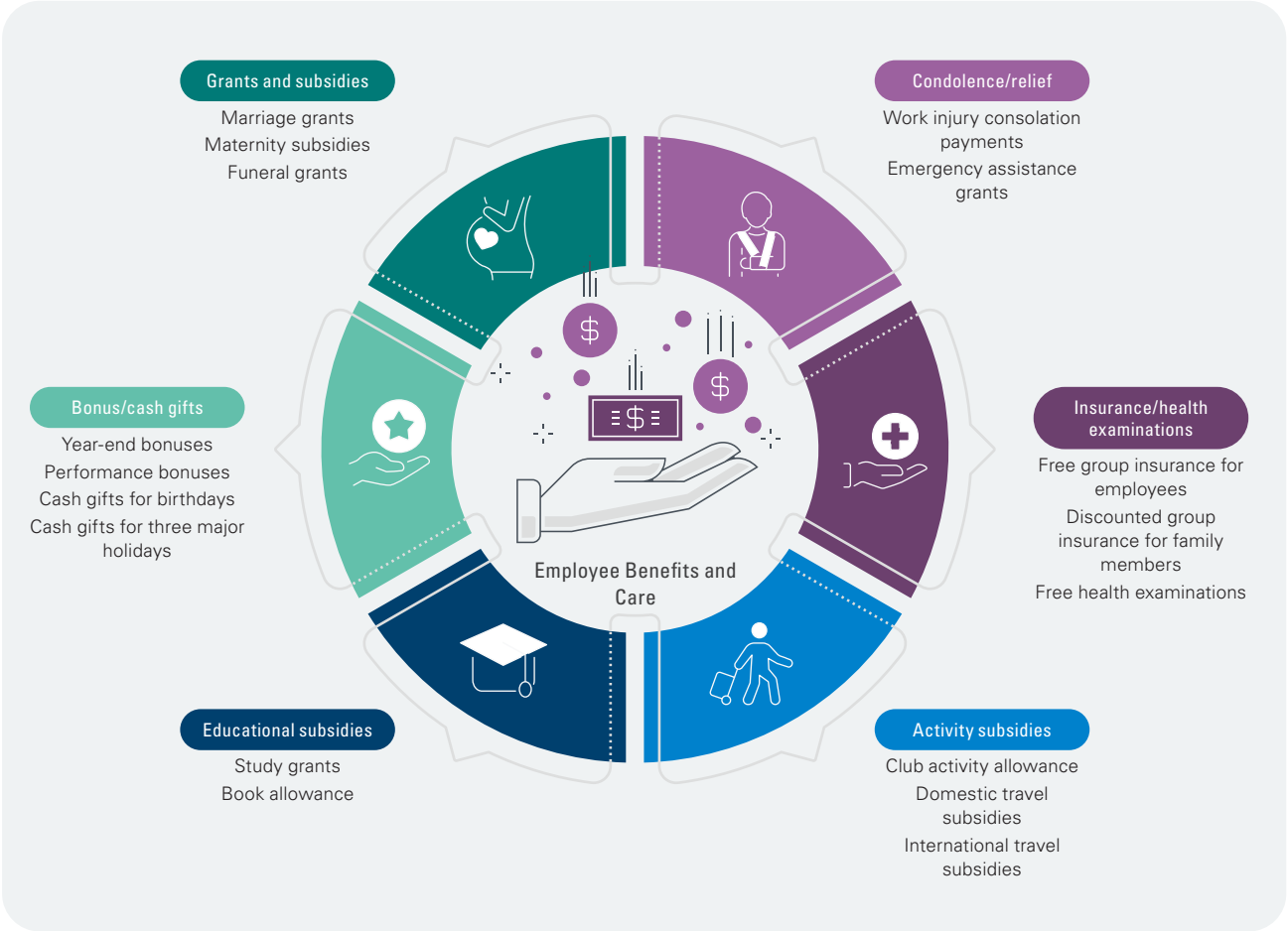
Average and Median Salaries of Non-managerial Employees for 2024

TCC	Non-supervisory employees		
	2022	2023	2024
Total salary of non-managerial full-time employees (A) (NT$1,000)	151,241	160,394	168,407
Non-managerial full-time employees (B)	122	122	123
Average salary of non-managerial full-time employees (A/B) (NT$1,000)	1,240	1,315	1,369
Median salary of non-managerial full-time employees (NT$1,000)	1,046	1,128	1,190

4.1.4 Employee Benefits GRI 2-19、401-2、401-3

Employee Benefits

TCC views employees as our most valuable corporate asset. To promote employee well-being and support work-life balance, we offer diverse employee benefits that exceed regulatory requirements. In 2024, 100% of employees at both TCC and Star Energy were covered by company-provided benefits.



Employee Health and Protection

Employee health checkups

TCC offers free health checkups to all employees. Employees aged 40 and above are eligible for an annual checkup, while those under 40 receive a checkup every two years.

Number of health checkups in 2024: 90 (some employees postponed their checkups to 2025)

Employee group insurance

All employees are covered by free group insurance, including accident, medical, cancer, and life insurance. In addition, employees' parents and dependents are eligible to participate in health checkups and group insurance plans at discounted rates, providing dual protection for both the individual and their family.

A Healthy Environment Where Work and Life Are Balanced

TCC emphasizes work-life balance as a core value, and we have implemented welfare measures tailored to the needs of our employees and their families. These include creating a variety of clubs, running occasional Family Day events, and holding quarterly birthday celebrations. These all help create more opportunities for internal interaction and build a happy workplace.

Club Activities

The TCC Employee Welfare Committee oversees the planning of all employee clubs, which cover a range of interests such as fitness, sports, and coffee appreciation. We hold activities from time to time to encourage employee interaction. Each club establishes its own bylaws and holds regular meetings to review activities and budgeting. These efforts promote physical and mental well-being while strengthening employee cohesion. For example, a club at Guan Tian Plant has organized recreational outings to Wushantou Reservoir and hiking events in Xitou Nature Education Area, to encourage employees to maintain regular exercise habits and promote overall wellness.


Coffee Club


Biking Club


Ball Sports Club


Mountaineering Club

Badminton Club

Knowledge and Action Club


LOHAS Club


Green Adventure Club

Employee Birthday Celebrations

To foster a friendly, supportive workplace and enhance employee well-being, we have held quarterly birthday tea parties and an annual birthday banquet since 2023, bringing all employees together to celebrate in a joyful setting.

Employee Lounge

To create a comfortable working environment, the headquarters office in Taipei features an employee lounge equipped with reading materials and snacks. This helps staff rest and relax during their downtime.

Employee Benefits System

TCC provides legally compliant leave options including menstruation leave, tocolysis leave, pregnancy checkup leave, maternity leave, paternity leave, pregnancy checkup accompaniment leave, family care leave, and unpaid parental leave. We also encourage those at the end of their parental leave to return to their prior positions. In 2024, no employees applied for unpaid parental leave.

Item	Male	Female	Total
Total number of TCC's employees eligible for unpaid parental leave in 2024	83	44	127
A: Total number of employees who applied for unpaid parental leave in 2024	0	0	0
B: Number of employees who applied for reinstatement in 2024	0	0	0
C: Actual number of employees reinstated in 2024	0	0	0
D: Number of employees who should have been reinstated in 2024, but applied for extension	0	0	0
E: Number of employees who have continued to work for one year after reinstatement from unpaid parental leave in 2023	1	1	2
F: Number of employees who have been reinstated from unpaid parental leave in 2023	1	1	2
Reinstatement rate (%) = C/(B-D)	-	-	-
Retention rate (%) = E/F	100%	100%	100%

Note: Employees who have worked for at least six months and have a child under the age of three are eligible to apply for unpaid parental leave. Therefore, the table includes only employees who had been employed for at least six months as of December 31, 2024.

Item	Male	Female	Total
Total number of Star Energy's employees eligible for unpaid parental leave in 2024	148	49	197
A: Total number of employees who applied for unpaid parental leave in 2024	3	1	4
B: Number of employees who applied for reinstatement in 2024	3	1	4
C: Actual number of employees reinstated in 2024	3	1	4
D: Number of employees who should have been reinstated in 2024, but applied for extension	0	0	0
E: Number of employees who have continued to work for one year after reinstatement from unpaid parental leave in 2023	0	0	0
F: Number of employees who have been reinstated from unpaid parental leave in 2023	0	0	0
Reinstatement rate (%) = C/(B-D)	100%	100%	100%
Retention rate (%) = E/F	-	-	-

Note: Employees who have worked for at least six months and have a child under the age of three are eligible to apply for unpaid parental leave. Therefore, the table includes only employees who had been employed for at least six months as of December 31, 2024.

A Retirement System that Exceeds the Legal Requirements

A TCC employee can apply for retirement if they meet the qualifications specified in Article 53 of the Labor Standards Act. In addition, TCC expands this to include employees who have worked in the Company for more than 10 years and whose sum of work experience (in years) and age exceeds 70. This flexible retirement system provides our employees with more options for their career planning.

Retirement System	Work experience & age	Contribution system
Retirement conditions based on the Labor Standards Act, Article 53	Has worked for more at least 15 years; at least 55 years old Has worked for more than 25 years Has worked for more than 10 years; at least 60 years old	**Where the Labor Standards Act old pension system applies:** (1) 6.5% of the employee's total salary is allocated to the retirement fund every month, and deposited into a special bank account in the name of the Company's Worker Retirement Reserve Supervision Committee. (2) The pension reserve is annually reviewed by an external specialized actuarial company to ensure its sufficiency in meeting the pension payment fund requirements. **Where the Labor Standards Act new pension system applies:** The Company contributes 6% of the employee's total salary to the individual's pension account established by the Bureau of Labor Insurance on a monthly basis, in accordance with the labor pension level; TCC also withholds a certain amount as required for the employee's voluntary contribution rate and deposits it into the individual's pension account.
TCC-formulated flexible retirement conditions, superior to those stipulated in the Labor Standards Act	Has worked for more than 10 years and the sum of work experience (in years) and age exceeds 70	

Note: For details, see TCC's financial report for the previous year.

Volunteer Leave System

To encourage employees to participate in social welfare activities, TCC provides three days (for a total of 24 hours) of paid volunteer leave annually. If employees participate in volunteer activities organized by the Company on non-working days, they will be given number of volunteer leave hours based on the duration of the activity. For volunteer activities held on working days, the time spent participating in the activity during working hours is counted as volunteer leave for that day, and employees are paid when they take the volunteer leave.

4.2 Human Rights Protection and Inclusion

GRI 2-23 · 2-24 · 2-25 · 406-1 · 408-1 · 409-1 · 411-1

Human Rights Policy and Specific Management Plan

TCC establishes different management systems in accordance with labor laws. We are committed to complying with international human rights conventions, including the Universal Declaration of Human Rights (UDHR), UN Guiding Principles on Business and Human Rights (UNGPs), International Covenant on Civil and Political Rights (ICCPR), and International Covenant on Economic, Social and Cultural Rights (ICESCR), to protect employees' rights and interests.

TCC integrates our human rights policy into all management systems. We have established both the Human Rights Policy and Management Procedures, and the Specific Management Plans for Human Rights Concerns, which cover all managers, employees, and job applicants under the risk management framework. For each identified human rights concern, we set corresponding goals and action plans.

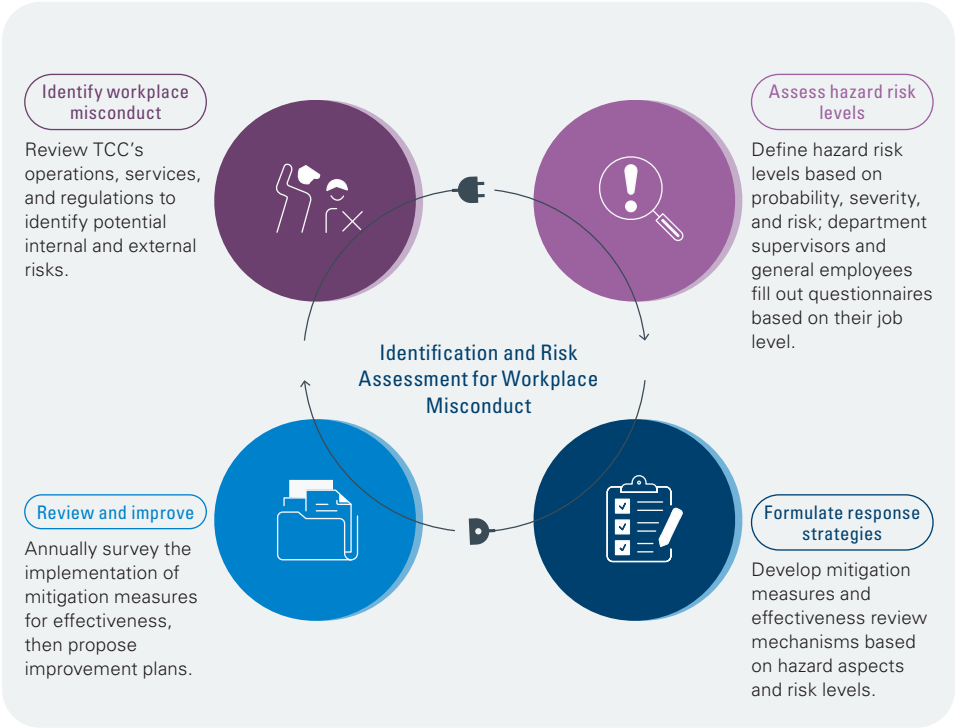
To ensure employee physical and mental well-being, eliminate workplace violence, prevent workplace injuries, and avoid unlawful physical or mental harm, we have developed comprehensive preventive mechanisms and implemented related preventive measures. All processes are thoroughly documented to ensure transparency and effectiveness. In the event of any workplace misconduct, employees can make a report through the Company's Workplace Misconduct Reporting Channel. This ensures timely, appropriate resolution. In 2024, TCC conducted risk assessments, through managers and related departments, on potential external/internal unlawful infringements. No incidents of child labor, discrimination, or forced labor were found.

Note: As of 2024, a dispute concerning bonus calculation remained subject to judicial review. As this is a one-off incident, it does not affect overall harmonious labor-management relations.

Strengthening Prevention of Workplace Misconduct

TCC adopts a zero-tolerance attitude toward workplace misconduct. To prevent employees from suffering physical or mental harm in the performance of their duties as a result of the actions of others, TCC has formulated the Taipei Office Procedures for Preventing Workplace Misconduct. These Procedures aim to establish a workplace culture that is safe, dignified, free from discrimination, respectful, inclusive, and equal in opportunity. The highest-ranking executive has reiterated and signed a written statement on preventing workplace misconduct, and this has been posted on the employee bulletin board to raise employee awareness about workplace misconduct.

Star Energy has also formulated the Procedures for Preventing Workplace Misconduct to prevent employees from suffering physical or mental harm due to others' actions. By 2025, we aim to revise the Procedures in accordance with the Ministry of Labor's *Guidelines for Preventing Illegal Infringement in the Course of Performing Professional Duties* (3rd Edition). The highest-ranking executive will then reaffirm and sign a written statement on workplace misconduct prevention, to be publicly posted on the employee bulletin board to heighten employee awareness.



Courses to Prevent Workplace Misconduct

Course title	Topics	Aimed at	Sessions	Total participants	Total hours
Preventing Workplace Misconduct (for supervisors)	Understanding definitions and responsibilities related to workplace misconduct; learning about prevention plans and implementation; analyzing case studies to identify and handle incidents.	Supervisors (chief level and above)	1	28	56
Unlawful Conduct	Unlawful conduct and sexual harassment	Star Energy	1	26	26
Workplace Misconduct	Workplace misconduct	Star Energy	1	41	41

4.3 Healthy Workplace

GRI 403-1、403-2、403-3、403-4、403-5、403-6、403-7、403-8、403-9、403-10 SASB IF-EU-320a.1

TCC places great importance on the safety and quality of our employees' working environments. In 2024, there were no reported incidents of legally-defined occupational diseases. In addition to offering regular health checkups that exceed legal requirements, TCC's headquarters office also implemented the following safety and health measures related to the working environment:

TCC's Headquarters Office: Equipment and environmental safety inspections

- ☑ Specialized workplace safety company conducts public safety inspections every two years, then reports in accordance with regulations.
- ☑ Conduct one fire safety inspection and one relevant drill course annually.
- ☑ Carpets cleaned and building sprayed for pests twice a year; additional cleaning as needed.
- ☑ Conduct two workplace environmental monitoring sessions annually to protect employee health and safety.
- ☑ Annual equipment safety inspections and maintenance.
- ☑ Quarterly fire safety equipment self-inspections, verified and reported by licensed fire safety engineers.
- ☑ Office floors and public areas cleaned, and waste collected, on a daily basis.
- ☑ Environment improvements on an as-needed basis; examples include increased inspection frequency, stronger cleanliness standards, and adding toner filters.
- ☑ Air purifiers installed and filters regularly replaced in all areas to safeguard employee health.

TCC's Headquarters Office: Health consultations and health promotion activities

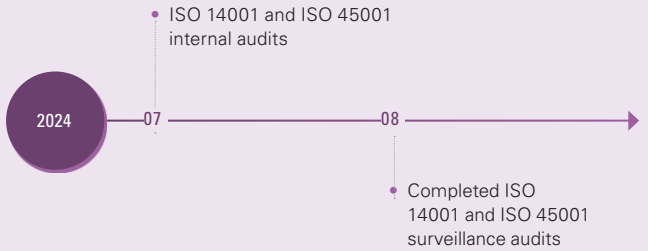
- ☑ Health management center is located on the first floor of the building.
- ☑ Employees can sign up for health and wellness courses/activities on an occasional basis.
- ☑ Contract nurses and doctors provide regular onsite services, health education, and consultations.

Since 2023, TCC has regularly arranged for contracted nurses and physicians to provide onsite services, promoting workplace health risk management and enhancing employee awareness and well-being. The onsite nurses analyze and manage employees hierarchically based on their health checkups and physical examination reports. In 2024, 38 employees received individual consultations and health education. TCC also received the Badge of Accredited Healthy Workplace – Health Promotion.

Completing ISO 45001 and CNS 45001:2018 Occupational Health and Safety Management Systems verification

The Guan Tian Plant emphasizes occupational health and safety for its workers. In addition to implementing ISO 9001 Quality Management System and ISO 14001:2015 Environmental Management System, the plant also established the ISO 45001 (CNS 45001:2018) Occupational Health and Safety Management Systems in 2019 to reinforce the policy of "Respect for Life, Safety First, Care for Health, and Environmental Friendliness". This integrated quality, environmental, and occupational health and safety management system ensures the production of high-quality, environmentally friendly, and safe products.

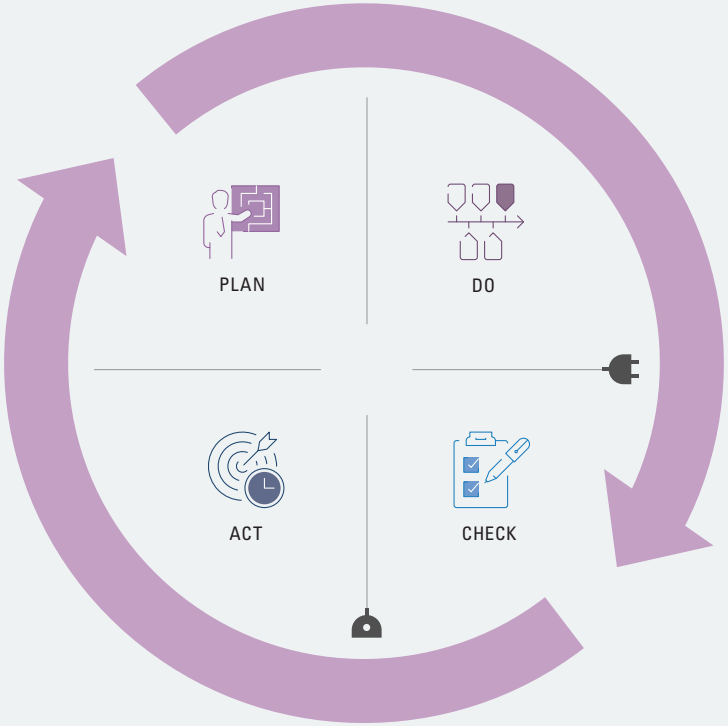
The Guan Tian Plant's Occupational Health and Safety Management System not only covers its own employees but also includes contractors, individual/self-employed workers, dispatched workers, suppliers, customers, and other business partners. The system covers approximately 78.3% of the total workforce. In addition, Guan Tian Plant uses hazard identification and risk assessment to identify occupational hazards that present a high risk of serious work-related injury. Based on each operation's characteristics, possible causes/activities and types of hazards, the plant identifies the severity, frequency of occurrence, and frequency of operation to calculate a risk value; from this, we further determine the risk level for hierarchical control. Finally, risk control measures are used to eliminate other occupational hazards and minimize the risk.



ISO 45001 Occupational Health and Safety Management System Implementation

Chapters 4 & 6: Organizational Context and Planning

- Discuss the framework for preliminary review, collect issues, confirm document revisions, and formulate action plans.
- Build a more comprehensive occupational safety and health management system and share experiences with members of the Safety and Health Family.
- Maintain the consistent goal of zero occupational injury incidents at Guan Tian Plant.



Chapters 7 & 8: Support and Operation

- Conduct quarterly legal compliance assessments.
- Collaborate with a specialized consulting firm to provide education and training; carry out hazard and risk identification across all plant operations.
- Integrate communication with internal/external parties through ISO 14001 to meet stakeholders' needs and expectations.

Chapter 9: Performance Evaluation

- Hold annual management review meetings to verify the management system's applicability and effectiveness.
- Conduct regular internal audits to ensure the system is effectively and consistently implemented.
- Review achievement rates in accordance with the Objectives, Targets, and Program Management Procedures.

Chapter 10: Improvement

- Implement control and corrective actions in accordance with the Procedures for Corrective and Preventive Action.
- Outsource to consulting firms for guidance and certification renewal, thus ensuring effective improvements.
- Maintain documentary information as evidence of continual improvement.

At TCC's Guan Tian Plant, monthly occupational safety and health (OSH) meetings are chaired by the Plant Manager, with supervisors from related sections serving as labor representatives. These meetings review and promote OSH matters from the previous month and establish plans for future safety actions. "Zero occupational safety incidents" is set as a key annual performance indicator. Since the plant was first built in 1998, Guan Tian Plant has had no work-related injuries. As of December 2024, the plant has logged 1,276,429 consecutive hours without work injury, surpassing the milestone of 1 million work injury-free hours and continuing toward the goal of 1.5 million work injury-free hours.

To ensure safety for contractors working within Guan Tian Plant, TCC has established several safety guidelines, including the Operation Management Guidelines for Contractors Entering Guan Tian Plant, the Confined Space (Oxygen Deficiency) Operation Guidelines for Guan Tian Plant, and the Hot Work Operation Guidelines for Guan Tian Plant. Examples of specific measures include holding joint operation coordination and contractor OSH meetings before annual overhauls; conducting contractor hazard awareness and safety trainings prior to plant entry; requiring pre-construction safety meetings between contractors and related departments prior to site entry; and mandating approval for hot work operations prior to commencement. For confined space operations, contractors must apply in advance and continuously monitor oxygen, hydrogen sulfide, and other harmful gas concentrations before and during operations. Additionally, proper ventilation, the use of respiratory protective equipment, and other safety precautions must be implemented to ensure safety for all personnel on site.

Cogeneration Safety and Health Family

The Cogeneration Safety and Health Family (CSHF) was established in 2019. TCC's Guan Tian Plant forms the core enterprise, with other companies within Guantian Industrial Park as collaborators. The CSHF is responsible for organizing OSH training, providing onsite OSH guidance to CSHF members, and facilitating information exchange and resource sharing. By 2024, the CSHF grew to include 26 member companies. Through collaborative training programs, and site visits in partnership with Labor Affairs Bureau consultants and TCC OSH personnel, the CSHF provides tailored improvement recommendations and works with members to build a zero-injury work environment. In 2024, the CSHF conducted one in-person training session, and two rounds of OSH site visits, helping 25 member companies enhance their OSH performance. For five consecutive years, the CSHF has been honored with an Outstanding Performance Award in the Occupational Safety & Health Family Assessments. Our leadership as the core enterprise in this OSH promotion effort has earned TCC a Certificate of Appreciation from the Labor Affairs Bureau of Tainan City Government.

An exceptional organization for occupational safety and health

Guan Tian Plant has long been committed to strengthening OSH and promoting a strong OSH culture. In recognition of its achievements in these areas, the plant was honored with an Excellent Occupational Safety Performance Award from Tainan City's Labor Affairs Bureau in 2024.

Environmental Safety and Health Management

TCC places great importance on maintaining a safe and healthy work environment for our employees. In addition to complying with occupational safety and health regulations, we have put several internal procedures in place: the Occupational Safety Management Procedures; the Health Examination Management Procedures; and the Periodic Inspection Management Procedures for Hazardous Equipment and Machinery. These procedures are rigorously followed to ensure all employees' safety and well-being.

Measures at TCC's Guan Tian Plant are as follows:

TCC's Guan Tian Plant – Equipment and Environmental Safety Inspections

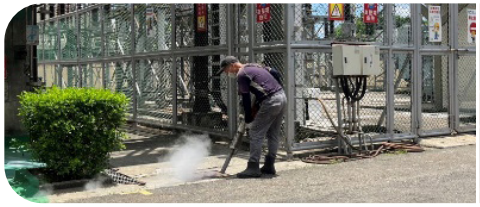
- ☑ Certified agencies review building public safety on an annual basis.
- ☑ Outsourced organizations monitor work environments every six months, including: Sulfuric acid tank area measurements; dust level testing; noise dosimetry; and general noise assessments.
- ☑ Conducted fire and disaster simulation drills twice a year.
- ☑ Conducted monthly supervisory self-inspections of hazardous materials, and submitted reports to the local fire department for reference.
- ☑ Continuously reviewed and improved onsite environmental conditions to keep workers safe.

TCC's Guan Tian Plant – Health Examination and Management Plan

- ☑ Contracted onsite services with designated nurses, received occasional health information from medical institutions, formulated annual health service plans and managed the planning setup of first aid kits to provide employees with the health resources they need.
- ☑ Implement the health management systems graded based on check-up abnormalities; onsite physicians provide further evaluation, health education, and job placement recommendations as needed.
- ☑ Conducted 12 health checkup and management sessions in 2024.

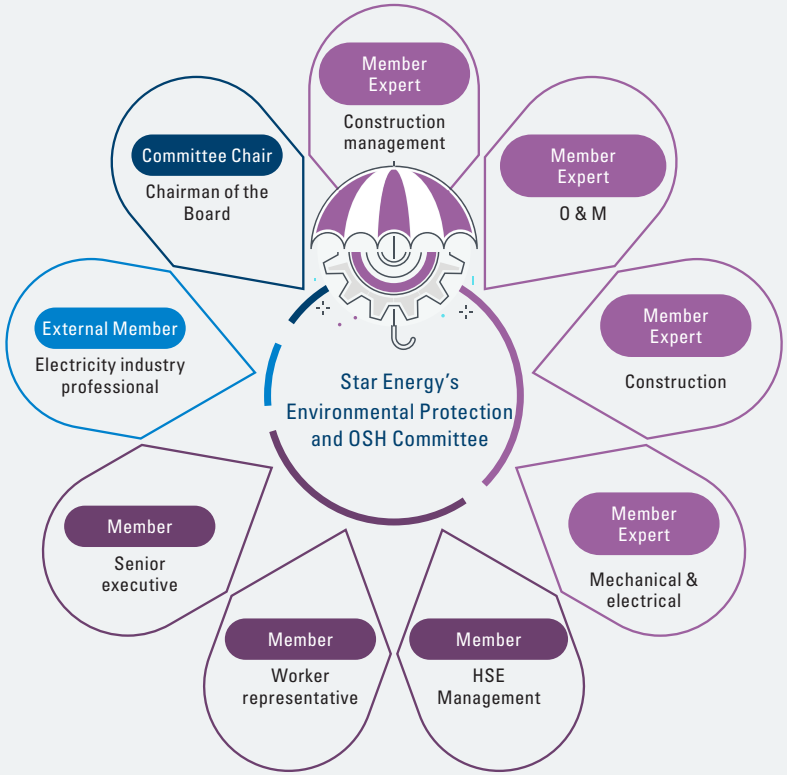

- ☑ Jointly organized the Tainan City 2024 Guantian Leisure Walk Activities for Workers: Preventing Occupational Accidents Together & Strolling in Anping for Safety; and Safe Workplaces Make Happy Faces. Both events promoted workplace safety, encouraged employees to stay active, helped build exercise habits, and enhanced employee physical and mental well-being.


- ☑ Fighting Disease in the Workplace – Preventing Dengue Fever: Enhanced environmental clean-up and pest control to prevent dengue fever, avoid cross-infection, keep indoor environments sanitary, and ensure the whole plant is clean and pest-free.




Star Energy Passed CNS 45001 and TOSHMS Verification

Star Energy has established an Occupational Safety and Health Management Office, and convenes the Environmental Protection and Occupational Safety and Health Committee quarterly. At the beginning of each year, Star Energy also holds a management review meeting to discuss topics such as preventing occupational injuries and diseases, environmental protection and safety proposals, and OSH plan reviews. As a result of these efforts, overall safety performance has significantly improved. Star Energy also promotes awareness of occupational safety, health, and environmental protection among all employees through education, training, and drills. This fosters a workplace culture aligned with ESG and sustainable development principles.



Star Energy places great emphasis on worker OSH. In addition to implementing ISO 9001 Quality Management System and ISO 14001:2015 Environmental Management System, Star Energy introduced the OHSAS 18001 Occupational Health and Safety Management System in 2017 and transitioned to ISO 45001 certification in 2020. Through these measures, Star Energy is further strengthening OSH management and realizing the "Respect for Life, Safety First, Care for Health, and Environmental Friendliness" policy. To align its occupational safety and health system with Taiwan's national context and international standards, Star Energy further obtained CNS 45001 & Taiwan Occupational Safety and Health Management System (TOSHMS) certification in 2022. This integrated approach to quality, environmental, and OSH management ensures the production of high-quality, environmentally friendly, and safe products.

To promote a strong OSH culture and facilitate technical exchanges, the Occupational Safety and Health Management Office participated in **12** external occupational safety activities and seminars hosted by government agencies and external organizations in 2024. These helped create opportunities for industry collaboration and experience sharing.

In health promotion, Star Energy adopts a caring approach to employee well-being by implementing health management, occupational disease prevention, and health promotion services. In 2024, Star Energy organized **16** health promotion seminars, conducted **26** health promotion campaigns, and arranged for contracted nurses and physicians to provide regular onsite services. All these efforts advanced workplace health risk management and boosted employee wellness.

The onsite nurses analyze employee health checkup reports, then manage them hierarchically. In 2024, **69** employees received individual consultations and health education sessions, yielding excellent results.

To implement Star Energy's policy of "Respect for Life, Safety First, Care for Health, and Environmental Friendliness", and to enhance effectiveness in implementing environmental safety and health improvements, Star Energy has adopted mobile app-based management by walking around and encouraged the reporting of near-miss incidents. These efforts help prevent accidents before they occur. Star Energy has also launched a series of training courses related to occupational safety, health, and environmental protection. These include ISO management system auditor courses; general education and training for occupational safety and health officers; traffic safety awareness training; air pollution control; waste management training for designated personnel; Global Wind Organization (GWO) training; as well as drills and awareness campaigns. This helps implement the spirit of all-employee participation and continuous improvement throughout the OSH domain.

Implementing Zero Occupational Accident Management at Star Energy

From a construction management perspective, providing a safe working environment is crucial to ensuring project success. Through collaborating with international companies, Star Energy has identified that the key to achieving zero occupational accidents lies in *implementation*.

Star Energy implements ongoing measures for hazard and risk prevention. These include creating a Risk Assessment and Method Statement (RAMS), both before and during operations. Before each day of work commences, Star Energy also holds a short Toolbox and Kiken Yochi ("hazard prediction") Meeting (TBM-KY) to heighten safety awareness. In addition, Star Energy prioritizes site organization and housekeeping to create a safe working environment. By adopting preventive measures and integrating them into daily management practices, Star Energy effectively prevents accidents while significantly improving work efficiency and project progress.

Occupational Injury and Absence Rate Statistics

Employees		TCC Taipei Office	Guan Tian Plant	Star Energy
Total working hours	Male	80,320	86,992	319,905
	Female	82,328	6,024	43,623
	Total	162,648	93,016	363,528
Work-related fatality rate	Male	0	0	0
	Female	0	0	0
	Total	0	0	0
High-consequence work- related injury rate	Male	0	0	0
	Female	0	0	0
	Total	0	0	0
Total recordable incident rate (TRIR)	Male	0	0	0.63
	Female	0	0	0
	Total	0	0	0.55
Lost day rate (LDR)	Male	0	0	0
	Female	0	0	0
	Total	0	0	0
Absence rate (AR)	Male	1%	0%	0.67%
	Female	3%	0%	1.19%
Number of near-miss incidents	Male	0	0	1
	Female	0	0	0
	Total	0	0	1
Near miss frequency rate (NMFR)	Male	0	0	1
	Female	0	0	0
	Total	0	0	0.55

Other workers (contractors/suppliers)		TCC Taipei Office	Guan Tian Plant	Star Energy
Total working hours	Male	-	60,364	940,460
	Female	-	7,322	165,964
	Total	-	67,686	1,106,424
Work-related fatality rate	Male	-	0	0
	Female	-	0	0
	Total	-	0	0
High-consequence work- related injury rate	Male	-	0	0
	Female	-	0	0
	Total	-	0	0
Total recordable incident rate (TRIR)	Male	-	0	0.85
	Female	-	0	0
	Total	-	0	0.72
Lost day rate (LDR)	Male	-	0	0
	Female	-	0	0
	Total	-	0	0
Number of near-miss incidents	Male	-	0	0
	Female	-	0	0
	Total	-	0	0
Near miss frequency rate (NMFR)	Male	-	0	0
	Female	-	0	0
	Total	-	0	0

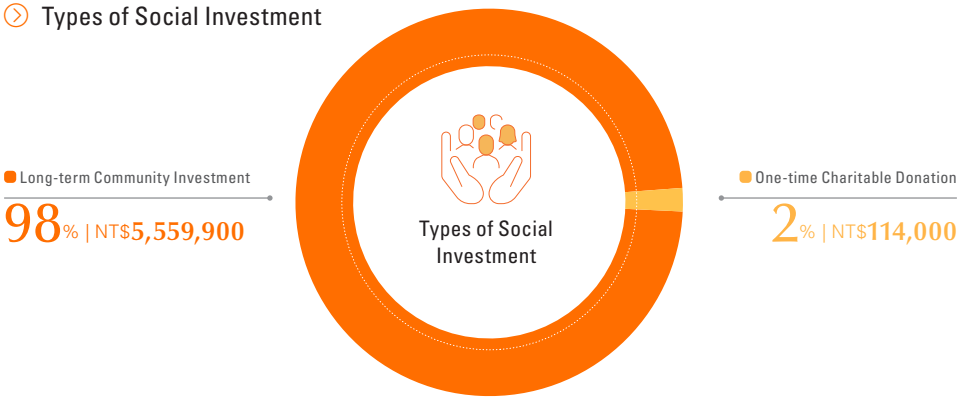
Note 1: Work-related fatality rate = Number of fatalities as a result of work-related injury/total working hours × 200,000
Note 2: High-consequence work-related injury rate = Number of high-consequence work-related injuries (excluding fatalities)/total working hours × 200,000
Note 3: Total Recordable Incident Rate (TRIR) = Number of recordable work-related injuries/total working hours × 200,000
Note 4: Absence rate (AR) = (Number of days on work injury leave + sick leave + menstrual leave + days of absence due to injury or illness resulting in loss of work capacity)/total working days × 100%
Note 5: Lost day rate (LDR) = Lost days due to work-related injury/total working hours × 200,000
Note 6: Near miss frequency rate (NMFR) = Number of near-miss incidents/total working hours × 200,000
Note 7: Star Energy employees experienced 1 incident of "07 Pinch" occupational injury; Star Energy contractors experienced 4 incidents of "06 Bumped Into" occupational injuries.
Note 8: In 2024, Star Energy had 5 accidents due to commuting, which are not included in the work-related injury rate calculations above.

- Community investment exceeded NT$5.67 million
- Human resources invested: Approximately 247 people
- Approximately 3,802 beneficiaries, benefiting a total of 25 organizations

CHAPTER 05
Social Care, Local Engagement

TCC Group upholds the philosophy of "what we take from society, we give back to society" and centers its social engagement strategy around three pillars: Education Investment for New Generation, Social Care and Participation, and Giving Back to Local Communities. Through investing in talent development in the energy sector, supporting charitable activities, and engaging in local community contributions, the Group actively contributes to four United Nations Sustainable Development Goals (SDGs): No Poverty, Good Health and Well-being, Quality Education, and Reduced Inequalities. This commitment fosters a continuous cycle of goodwill. In addition, the Group adopts the Business for Social Impact (B4SI) framework to quantify our 2024 social contributions in terms of financial resources, labor, and number of beneficiaries.

Types of Social Investment



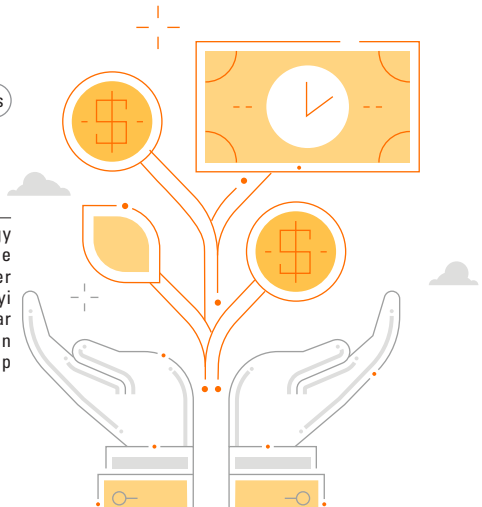
Contribution Programs

Time invested:
- Participants: 247 people
- Total activity time: 311hours
- Total time: 1,446 person-hours

Cash donations:
NT$5,673,900

In-kind and service contributions
NT$32,000

Management costs
NT$294,380



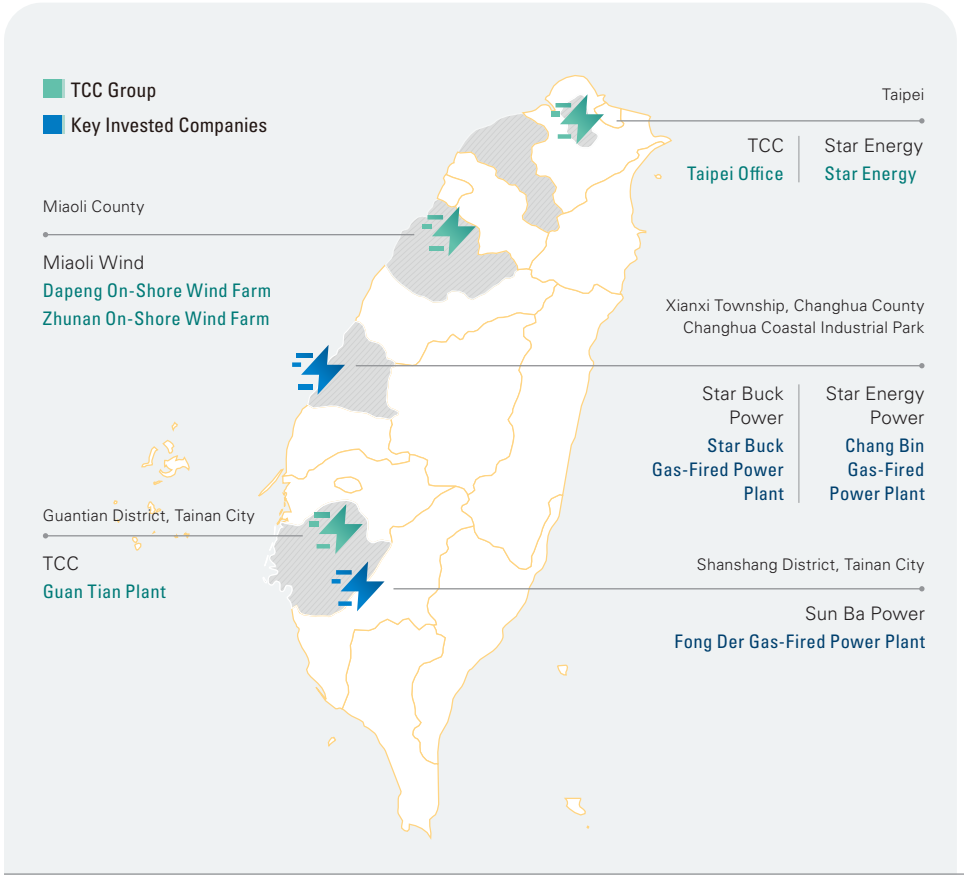
Explanation

In-kind contributions: Star Energy donated sandbags and portable water pumps to assist in disaster relief in Shulin Community, Chiayi County during Typhoon Gaemi. Star Buck Power sponsored graduation gifts for students at a township kindergarten.

Scope of Our Corporate Communities

The operating locations of TCC Group and our key affiliated companies are primarily based in Taiwan, including the Group's headquarters and the specific power plant sites. The term "community" primarily refers to the neighborhoods, townships, and municipalities surrounding the Group's headquarters and power plant sites, to focus our business co-prosperity partnerships on our local communities.

Since some social welfare activities are in such strong alignment with our sustainability commitments, we select communities that are not near our operating locations as sites for those activities. Through strengthening ties with local communities and giving back to society, TCC aims to fulfill our goal of sustainable business development.



5.1 Education Investment for a New Generation

Power Grid Talent – Bridging Industry, Academia, and Research to Cultivate Power Industry Experts

As global green energy grows rapidly, smart grids, energy storage systems, and innovative electricity services are also flourishing. The TCC Group continues to follow developments in the energy sector; to address the domestic talent shortage in this field, we co-founded the Power School and Talent Development Alliance in partnership with the Industrial Technology Research Institute. This alliance sponsors scholarships and expert evaluations, with the aim of recruiting outstanding professionals, nurturing emerging power grid talents, and thus creating diverse employment opportunities.

The alliance established the Power School to cultivate elite specialists in the power field. The school offers practical, specialized training and customized corporate courses. The alliance connects with universities to provide interdisciplinary programs on sustainable energy and smart grid applications. The alliance also uses a digital platform to spread knowledge about the power grid. The Power School and Talent Development Alliance Scholarship awards over NT$1,000,000 annually to students with outstanding research projects and excellent academic performance in related fields. This encourages talented individuals to pursue research in power grid and electricity-related areas, thus attracting more students and professionals to join the industry and support continued development for Taiwan's power sector.

TCC has participated in the Power School and Talent Development Alliance since 2019, sponsoring NT$100,000 in scholarships annually and assigning internal experts to serve on the judging panels for outstanding thesis selections. TCC also sponsors the Taiwan Power and Energy Engineering Association's Liu Shu-sheng Memorial Award, which honors outstanding power professionals under the age of 35 who work in Taiwan's electricity-related industries. This initiative helps enhance technical capabilities in the domestic power sector, fosters collaboration with academia and research institutions, and encourages more young people to pursue careers in power and energy engineering.

University and Graduate Scholarship Programs

To support students and nurture talented individuals, TCC subsidiary Star Energy established scholarship programs for university and graduate students in relevant disciplines. These programs encourage academic excellence and provide guaranteed job placement upon graduation for selected candidates, enabling students eager to join the industry to contribute their expertise. Related information is published on Star Energy's website. In 2024, one student (a first-year master's student) was successfully selected and awarded a scholarship.

5.2 Social Care and Participation

TCC has long operated power plants with a commitment to a stable power supply and co-prosperity with society. In addition to striving to reduce environmental impacts from our operations, the Company is an ongoing, active participant in local life, and supports community development. TCC supports underprivileged people, promotes culture and education, and encourages health and sports initiatives to fulfill our corporate social responsibility. We have created a volunteer group, and we provide employees with three days of volunteer leave per year to encourage them to participate in corporate volunteer activities.

50 employees and their families participated in the race

TAYA Marathon

TCC's Guan Tian Plant has been operating in Tainan for over 20 years, and the Wushantou Photovoltaic Power Plant is also located in Tainan. In line with our philosophy of local engagement, the Company co-sponsored the TAYA Marathon (organized by our shareholder company Ta Ya Electric Wire & Cable) on March 31, 2024. All told, 50 employees and their families participated in the race, helping promote the concept of fitness for all.

In 2024, employees joined in over **2,000** times

Earth Day Vegetarian Campaign

Since May 2020, TCC has implemented a Vegetarian Day every month. This calls on employees to reduce carbon emissions by going vegetarian for one day. In 2024, employees joined in over 2,000 times. The initiative has continued to receive positive feedback, and is further expanded on Earth Day with a special event to remind employees to value food, reduce waste, and embrace low-carbon lifestyles. Through small daily actions, we can realize a more sustainable and earth-friendly lifestyle.

Tianzhong Marathon

The Tianzhong Marathon in Changhua is a sports event well-known in Taiwan for combining road running with the promotion of local foods and culture. The event has received widespread praise for its emphasis on sustainable sports practices. In addition to reducing waste, the marathon also conducts carbon footprint assessments, making it one of the first sporting events in Taiwan to receive a carbon footprint label from the Ministry of Environment. With our investments in the Chang Bin Gas-Fired Power Plant and renewable energy projects in Changhua, TCC has long been a sponsor and participant in Changhua events, to promote local co-prosperity and integration.

Hope Reading Program: Volunteer Service in Remote Villages

The *CommonWealth* Magazine Education Foundation launched the Hope Reading program in 2004. Since then, the program has been adopted in over 200 schools in remote regions; the program organizes book donations, reading competitions, reading volunteer services, and teacher training programs to promote reading education in areas with scarce reading resources. In 2024, as part of our commitment to supporting the disadvantaged and advancing social welfare, TCC partnered with the foundation by dispatching 12 trained employee volunteers to lead reading sessions at elementary schools in Fangyuan Township, Changhua County. The volunteers introduced students to renewable energy and electricity concepts through reading activities and do-it-yourself educational kits, all while teaching them about SDG 12 (Responsible Consumption and Production) and SDG 14 (Life Below Water). Our work aimed to raise children's environmental awareness and foster their interest in sustainable development.

Hope Reading Program has been adopted in over **200** schools in remote regions

Words from a volunteer

I was honored to participate in the Hope Reading program jointly organized by TCC and the *CommonWealth* Magazine Education Foundation. For this event, I visited Caohu Elementary School in Fangyuan Township, Changhua, and read a picture book with third-grade students. The book introduced the concept of sustainability through the topic of recycling, stressing individual efforts. The students responded enthusiastically, confidently sharing how they would "reuse" their toys once they no longer played with them. With one talking after the other, the whole classroom was filled with laughter. For the hands-on activity, we chose to make spinning tops out of easily accessible paper cups. Seeing the children's innocent, joyful smiles brought me a great sense of accomplishment.

Volunteer from the Administration Department

5.3 Giving Back to Local Communities

TCC's headquarters is located in Taipei. The Guan Tian Cogeneration Plant is in Tainan, and its three invested gas-fired power plants are both situated in Changhua and Tainan. Over more than a decade, each plant has maintained strong relationships with neighboring townships, actively participating in and sponsoring community events. Star Energy, which has undertaken multiple renewable energy EPC projects in Changhua in recent years, also joins in local activities to contribute to regional development and give back to society through concrete action.

Guan Tian Plant

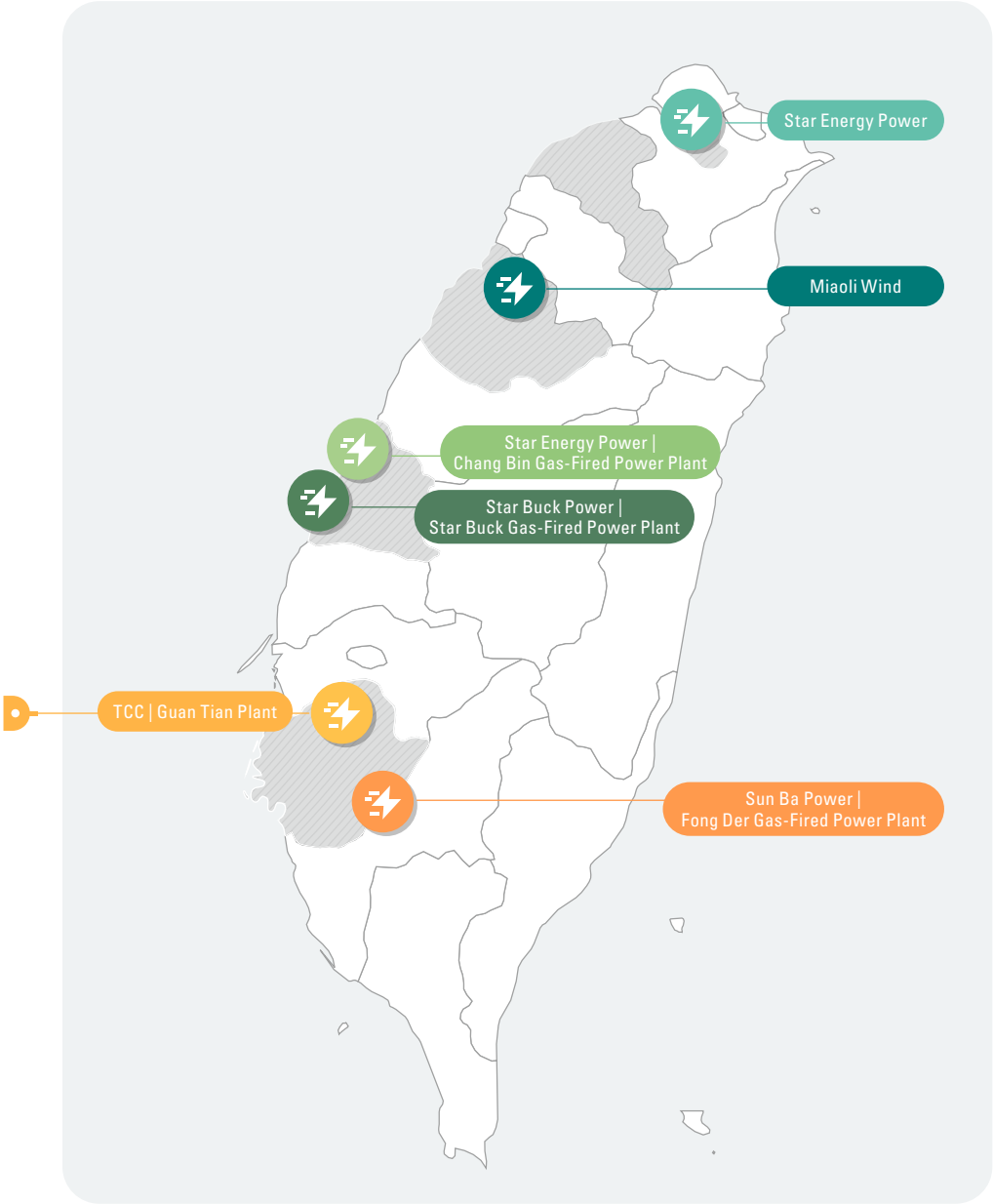
Local Contributions

To support local development, Guan Tian Plant actively engages in local initiatives and neighborly activities. Since 2019, the plant has adopted Erzhen Forest Park in the Guantian District. Through this program, the plant takes responsibility for protecting our environment, helps provide residents with clean, comfortable public spaces, and exemplifies giving back to our communities.

Guan Tian Plant's adoption of Erzhen Forest Park was recognized with a Certificate of Appreciation from the District Office.

Localizing talent

As of the end of 2024, Guan Tian Plant had 47 employees, 39 of whom were registered residents of Tainan, for a local employment rate of **83%**



Star Energy Power – Chang Bin Gas-Fired Power Plant

Chang Bin Gas-Fired Power Plant upholds the belief of maintaining friendly relationships with our neighboring communities. In 2024, the plant participated in a variety of local cultural and seasonal events, fulfilling its corporate social responsibility to care for local culture and development.

New Year's Day Flag-Raising and Health Walk

Reading Promotion

Double Ninth (Respecting the Elders) Festival Celebration

Arbor Day Activities

Sponsoring electric scooters for township offices

Supporting community mural projects

Sun Ba Power – Fong Der Gas-Fired Power Plant

"It's not just about power generation – it's about being a good local neighbor"

Sun Ba Power has invested significant resources – both material and non – to make a positive impact on local communities, by participating in neighborhood festivals and educational events. This demonstrates Sun Ba Power's deep commitment to its local community, and to the goal of thriving together with the community.

In 2024, Sun Ba Power sponsored: Agricultural promotion events through local farmers' associations; temple festivals and renovation projects; summer English camps and after-school tutoring for local junior high and elementary schools; community arts and volunteer programs; the adoption of community air quality monitoring zones; and emergency aid for disadvantaged elderly residents. Through these many efforts, Sun Ba Power demonstrates its deep sense of responsibility toward the local community.

Star Buck Power – Star Buck Gas-Fired Power Plant

To strengthen neighborly ties with nearby townships, enhance local welfare, promote harmony and prosperity, and uphold its corporate social responsibility, Star Buck Gas-Fired Power Plant participated in many local events in 2024. These included New Year's and Lantern Festival galas; streetlight adoption for local infrastructure development; participation in kindergarten graduation ceremonies; supporting energy conservation initiatives, as well as sponsoring related campaigns in alignment with government energy-saving policies; community development and disadvantaged group care; and fostering local cultural heritage. Through all these efforts, the plant contributed to the preservation of local cultural traditions, and did its part to give back to society.

Participation in local sports events

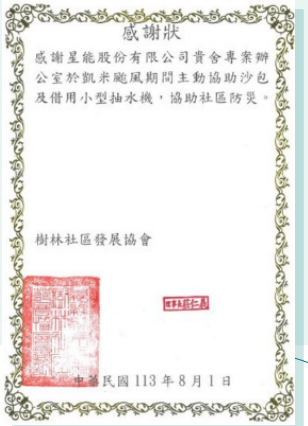
Participation in volunteer activities

Collaboration with the Huashan Social Welfare Foundation

Supporting kindergarten graduation ceremonies

Star Energy

As part of its commitment to corporate social responsibility, Star Energy continued to participate in community activities. During Typhoon Gaemi in 2024, Star Energy donated sandbags and portable water pumps to Shulin Community in Chiayi County for disaster relief, which earned praise from local residents. Star Energy also sponsored local neighborhood watch teams, Double Ninth (Respecting the Elders) Festival events, Mid-Autumn Festival events, seniors' association activities, and donations to local temples, consistently promoting a people-centered philosophy and coexistence with the community.


感謝狀

感謝星能股份有限公司貴舍專案辦公室於凱米颱風期間主動協助沙包及借用小型抽水機，協助社區防災。

樹林社區發展協會

中華民國 113 年 8 月 1 日

Miaoli Wind

Miaoli Wind sponsored and participated in community development association activities, aiming to use diverse exchanges to strengthen local ties and build positive partnerships with communities. Through such efforts, Miaoli Wind fulfills its commitment to give back to society.

APPENDIX

- GRI Standards Content Index
- SASB (Sustainability Accounting Standards Board) Content Index
- Taiwan Stock Exchange Corporation Rules Governing the Preparation and Filing of Sustainability Reports by TWSE Listed Companies Content Index
- Limited Assurance Report by Independent Auditor

GRI Standards Content Index

Statement of Use	Taiwan Cogeneration Corporation has reported the content for the 2024 period (January 1, 2024 to December 31, 2024) in accordance with the GRI Standards.
GRI 1 Used	GRI 1: Foundation 2021
Applicable GRI Industry Standards	The Company does not have any industry standards to follow during the reporting period.

Disclosure number	Disclosure title	Corresponding section in this report	Remarks
GRI 2: General Disclosures 2021			
2-1	Organizational details	About this Report 1.1.1 About TCC Group	
2-2	Entities included in the organization's sustainability reporting	About this Report	
2-3	Reporting period, frequency and contact point	About this Report	
2-4	Restatements of information	1.1.2 Economic Performance 2.3.1 Stable Power Supply 3.1.2 Energy Saving and Carbon Reduction	
2-5	External assurance	About this Report Limited Assurance Report by Independent Auditor	
2-6	Activities, value chain and other business relationships	The TCC Value Chain 1.1.1 About TCC Group 2.3.1 Stable Power Supply 2.4.1 Strong Supply Chain Partnership	There were no significant changes in business activities in 2024 compared to the previous year.
2-7	Employees	4.1.2 Employee Composition	
2-8	Workers who are not employees	4.1.2 Employee Composition	
2-9	Governance structure and composition	Sustainable Governance and Development Strategy 1.2.1 Corporate Governance	
2-10	Nomination and selection of the highest governance body	1.2.1 Corporate Governance	
2-11	Chair of the highest governance body	1.2.1 Corporate Governance	
2-12	Role of the highest governance body in overseeing the management of impacts	Sustainable Governance and Development Strategy Materiality Analysis and Stakeholder Engagement	
2-13	Delegation of responsibility for managing impacts	Sustainable Governance and Development Strategy	
2-14	Role of the highest governance body in sustainability reporting	About this Report	
2-15	Conflicts of interest	1.2.1 Corporate Governance	
2-16	Communication of critical concerns	Sustainable Governance and Development Strategy	
2-17	Collective knowledge of the highest governance body	1.2.1 Corporate Governance	
2-18	Evaluation of the performance of the highest governance body	Sustainable Governance and Development Strategy 1.2.1 Corporate Governance	
2-19	Remuneration policies	1.2.1 Corporate Governance 4.1.3 Talent Cultivation	
2-20	Process to determine remuneration	4.1.3 Talent Cultivation	

Disclosure number	Disclosure title	Corresponding section in this report	Remarks
2-21	Annual total compensation ratio	4.1.3 Talent Cultivation	1. The ratio of the annual total salary of the highest-paid individual to the median annual total salary for all other employees in the organization is 4.47. 2. The ratio of the percentage increase in the annual total salary of senior managers to the median percentage increase in the average annual total salary of all other employees (excluding senior managers) is 1.24.
2-22	Statement on sustainable development strategy	Statement from the Chairman	
2-23	Policy commitments	Materiality Analysis and Stakeholder Engagement 1.2.1 Corporate Governance 1.3.1 Risk Management Policy and System 2.4.3 Comprehensive Supplier Management 4.1.1 Human Resources Policy 4.2 Human Rights Protection and Inclusion	
2-24	Embedding policy commitments	1.2.1 Corporate Governance 2.4.3 Comprehensive Supplier Management 4.1.1 Human Resources Policy 4.2 Human Rights Protection and Inclusion	
2-25	Processes to remediate negative impacts	Materiality Analysis and Stakeholder Engagement 4.2 Human Rights Protection and Inclusion	
2-26	Mechanisms for seeking advice and raising concerns	1.2.2 Ethical Management and Legal Compliance	
2-27	Compliance with laws and regulations	1.2.2 Ethical Management and Legal Compliance	
2-28	Membership associations	1.2.3 External Collaboration	
2-29	Approach to stakeholder engagement	Materiality Analysis and Stakeholder Engagement	
2-30	Collective bargaining agreements	-	As the Company does not have a labor union, we hold quarterly labor- management meetings to ensure effective communication with our employees.
	GRI 3: Material Topics 2021		
3-1	Process to determine material topics	Materiality Analysis and Stakeholder Engagement	
3-2	List of material topics	Materiality Analysis and Stakeholder Engagement	
3-3	Management of material topics	Materiality Analysis and Stakeholder Engagement	
	Topic disclosure		
	GRI 201: Economic Performance 2016		
201-1	Direct economic value generated and distributed	1.1.2 Economic Performance	
201-2	Financial implications and other risks and opportunities due to climate change	3.1.1 Response Strategy and Environmental Management	
	GRI 204: Procurement Practices 2016		
204-1	Proportion of spending on local suppliers	2.4.1 Strong Supply Chain Partnership	
	GRI 205: Anti-corruption 2016		
205-3	Confirmed incidents of corruption and actions taken	-	No such incidents in 2024
	GRI 206: Anti-competitive Behavior 2016		
206-1	Legal actions for anti-competitive behavior, anti-trust, and monopoly practices	1.2.2 Ethical Management and Legal Compliance	

Disclosure number	Disclosure title	Corresponding section in this report	Remarks
		GRI 301: Materials 2016	
301-1	Materials used by weight or volume	3.1.2 Energy Saving and Carbon Reduction 3.2.1 Circular Economy	
		GRI 302: Energy 2016	
302-1	Energy consumption within the organization	3.1.2 Energy Saving and Carbon Reduction	
302-3	Energy intensity	3.1.2 Energy Saving and Carbon Reduction	
302-4	Reduction of energy consumption	3.1.2 Energy Saving and Carbon Reduction	
302-5	Reductions in energy requirements of products and services	3.1.2 Energy Saving and Carbon Reduction	
		GRI 303: Water and Effluents 2018	
303-3	Water withdrawal	3.2.2 Water Resource Management	
303-4	Water discharge	3.2.2 Water Resource Management	
303-5	Water consumption	3.2.2 Water Resource Management	
		GRI 305: Emissions 2016	
305-1	Direct (Scope 1) GHG emissions	3.1.2 Energy Saving and Carbon Reduction	
305-2	Energy indirect (Scope 2) GHG emissions	3.1.2 Energy Saving and Carbon Reduction	
305-3	Other indirect (Scope 3) GHG emissions	3.1.2 Energy Saving and Carbon Reduction	
305-4	GHG emissions intensity	3.1.2 Energy Saving and Carbon Reduction	
305-5	Reduction of GHG emissions	3.1.2 Energy Saving and Carbon Reduction	
305-7	Nitrogen oxides (NOx), sulfur oxides (SOx), and other significant air emissions	3.2.3 Air Pollution Prevention and Control	

Disclosure number	Disclosure title	Corresponding section in this report	Remarks
		GRI 306: Waste 2020	
306-1	Waste generation and significant waste-related impacts	3.2.1 Circular Economy	
306-2	Management of significant waste-related impacts	3.2.1 Circular Economy	
306-3	Waste generated	3.2.1 Circular Economy	
306-4	Waste diverted from disposal	3.2.1 Circular Economy	
306-5	Waste directed to disposal	3.2.1 Circular Economy	
		GRI 308 Supplier Environmental Assessment 2016	
308-1	New suppliers that were screened using environmental criteria	2.4.3 Comprehensive Supplier Management	
		GRI 401: Employment 2016	
401-1	New employee hires and employee turnover	4.1.2 Employee Composition	
401-2	Benefits provided to full-time employees that are not provided to temporary or part-time employees	4.1.4 Employee Benefits	
401-3	Parental leave	4.1.4 Employee Benefits	
		GRI 403: Occupational Health and Safety 2018	
403-1	Occupational health and safety management system	4.3 Healthy Workplace	
403-2	Hazard identification, risk assessment, and incident investigation	4.3 Healthy Workplace	
403-3	Occupational health services	4.3 Healthy Workplace	
403-4	Worker participation, consultation, and communication on occupational health and safety	4.3 Healthy Workplace	

Disclosure number	Disclosure title	Corresponding section in this report	Remarks
403-5	Worker training on occupational health and safety	4.3 Healthy Workplace	
403-6	Promotion of worker health	4.3 Healthy Workplace	
403-7	Prevention and mitigation of occupational health and safety impacts directly linked by business relationship	4.3 Healthy Workplace	
403-8	Workers covered by an occupational health and safety management system	4.3 Healthy Workplace	
403-9	Work-related injuries	4.3 Healthy Workplace	
403-10	Work-related ill health	4.3 Healthy Workplace	
	GRI 404: Training and Education 2016		
404-1	Average hours of training per year per employee	4.1.3 Talent Cultivation	
404-3	Percentage of employees receiving regular performance and career development reviews	4.1.3 Talent Cultivation	
	GRI 405: Diversity and Equal Opportunity 2016		
405-1	Diversity of governance bodies and employees	1.2.1 Corporate Governance 4.1.2 Employee Composition	
	GRI 406: Non-Discrimination 2016		
406-1	Incidents of discrimination and corrective actions taken	-	No such incidents in 2024
	GRI 408: Child Labor 2016		
408-1	Operations and suppliers at significant risk for incidents of child labor	2.4.3 Comprehensive Supplier Management 4.2 Human Rights Protection and Inclusion	No such incidents in 2024
	GRI 409: Forced or Compulsory Labor 2016		
409-1	Operations and suppliers at significant risk for incidents of forced or compulsory labor	2.4.3 Comprehensive Supplier Management 4.2 Human Rights Protection and Inclusion	No such incidents in 2024
	GRI 411: Rights of Indigenous Peoples 2016		
411-1	Incidents of violations involving rights of indigenous peoples	-	No such incidents in 2024
	GRI 414: Supplier Social Assessment 2016		
414-1	New suppliers that were screened using social criteria	2.4.3 Comprehensive Supplier Management 4.2 Human Rights Protection and Inclusion	
	GRI 416: Customer Health and Safety 2016		
416-2	Incidents of non-compliance concerning the health and safety impacts of products and services	-	No such incidents in 2024
	GRI 417: Marketing and Labeling 2016		
417-2	Incidents of non-compliance concerning product and service information and labeling	-	No such incidents in 2024
	GRI 418: Customer Privacy 2016		
418-1	Substantiated complaints concerning breaches of customer privacy and losses of customer data	-	No such incidents in 2024
	Other (refer to GRI G4 Supplementary Indicators for the Electric Utility Sector)		
EU-10	Planned capacity against projected electricity demand over the long term, broken down by energy source and regulatory regime	2.3.1 Stable Power Supply	
EU-11	Average generation efficiency of thermal plants by energy source and by regulatory regime	3.1.2 Energy Saving and Carbon Reduction	
EU-28	Power outage frequency	2.3.1 Stable Power Supply	
EU-29	Average power outage duration	2.3.1 Stable Power Supply	

SASB (Sustainability Accounting Standards Board) Content Index

Topic	Code	SASB disclosure	Report content	Corresponding section in this report
Greenhouse Gas Emissions & Energy Resource Planning	IF-EU-110a.1	(1) Gross global Scope 1 emissions, percentage covered under (2) emissions-limiting regulations and (3) emissions-reporting regulations	Greenhouse gas Scope 1 emissions for Guan Tian Plant in 2024 was 369,277 metric tons of CO_2e. Currently, there are no emissions-limiting and emissions-reporting regulations in Taiwan.	3.1.2 Energy Saving and Carbon Reduction
	IF-EU-110a.2	Greenhouse gas (GHG) emissions associated with power deliveries	Guan Tian Plant is a cogeneration plant. Its Scope 1 and 2 greenhouse gas emissions in 2024 equaled 369,530 metric tons of CO_2e.	3.1.2 Energy Saving and Carbon Reduction
	IF-EU-110a.3	Discussion of long- and short-term strategy or plan to manage Scope 1 emissions, emissions reduction targets, and an analysis of performance against those targets	TCC's Guan Tian Plant conducts an annual GHG inventory, which is verified by an independent third-party institution, to keep track of GHG emissions and set the GHG emission reduction strategy. In 2024, the Guan Tian Plant implemented energy saving and carbon-reduction projects, resulting in a reduction of approximately 4,295 metric tons of CO_2e. We have also completed GHG inventories and verification planning for TCC and our subsidiaries.	3.1.2 Energy Saving and Carbon Reduction
Air Quality	IF-EU-120a.1	Air emissions of the following pollutants: (1) NOx, (2) SOx, (3) PM_{10}, (4) lead (Pb), and (5) mercury (Hg); percentage of each in or near areas of dense population	(1) NOx: 214.5 metric tons, (2) SOx: 188.9 metric tons, (3) PM: 3.6 metric tons; percentage of emissions in or near area of dense population: 100%	3.2.3 Air Pollution Prevention and Control
Water Resource Management	IF-EU-140a.1	(1) Total water withdrawn, (2) total water consumed; percentage of each in regions with High or Extremely High Baseline Water Stress	In 2024, TCC's Guan Tian Plant withdrew 798.31 thousand cubic meters (megaliters) of water, consumed 737.68 thousand cubic meters (megaliters) of water, and discharged 60.63 thousand cubic meters (megaliters) of water. The plant is not located in a high or extremely high water stress area.	3.2.2 Water Resource Management
	IF-EU-140a.2	Number of incidents of non-compliance associated with water quality permits, standards, and regulations	The Guan Tian Plant properly handles discharged wastewater; all discharged wastewater passes standards.	3.2.2 Water Resource Management
	IF-EU-140a.3	Description of water management risks and discussion of strategies and practices to mitigate those risks	See Water Risk Management and Measures for details.	3.2.2 Water Resource Management
Coal Ash Management	IF-EU-150a.1	(1) Amount of coal combustion products (CCPs) generated, (2) percentage recycled	The total coal ash produced in 2024 was 22,880 metric tons, and the recycling rate was 100%.	3.2.1 Circular Economy
	IF-EU-150a.3	Description of coal combustion product (CCP) management policies and procedures for active and inactive operations	100% of fly ash and bottom ash were recycled to produce controlled low-strength material (CLSM).	3.2.1 Circular Economy
Energy Affordability	IF-EU-240a.1	Average retail electric rate for (1) residential, (2) commercial, and (3) industrial customers	TCC's retail electric rate is based on time-of-use (TOU) rates and feed-in tariff (FIT) rates	-
	IF-EU-240a.3	(1) Number of residential customer electric disconnections for non-payment, (2) percentage reconnected within 30 days	TCC does not supply power to residential users.	-
	IF-EU-240a.4	Discussion of impact of external factors on customer affordability of electricity, including the economic conditions of the service territory	Changes in fuel prices, the trend of tightening regulations, impacts of the pandemic, and changes in the renewable energy market affect affordability of electricity for users.	2.1 New Directions for the Energy Transition
Workforce Health & Safety	IF-EU-320a.1	(1) Total recordable incident rate (TRIR), (2) fatality rate, and (3) near miss frequency rate (NMFR) for (a) direct employees and (b) contract employees	(1) Total recordable incident rate (TRIR): 0%, (2) Occupational injury fatality rate: 0%, and (3) Near miss frequency rate (NMFR): 0%	4.3 Healthy Workplace

Topic	Code	SASB disclosure	Report content		Corresponding section in this report
End Use Efficiency & Demand	IF-EU-420a.2	Percentage of electric load served by smart grid technology	No smart grid available		-
	IF-EU-420a.3	Customer electricity savings from efficiency measures, by market	In 2024, a total of 88 MWh of electricity was saved.		3.1.2 Energy Saving and Carbon Reduction
Nuclear Safety & Emergency Management	IF-EU-540a.1	Total number of nuclear power units, broken down by the results of the most recent independent safety review	TCC does not use nuclear-generated electricity.		-
	IF-EU-540a.2	Description of efforts to manage nuclear safety and emergency preparedness	TCC does not use nuclear-generated electricity.		-
Grid Resiliency	IF-EU-550a.1	Number of incidents of non-compliance with physical or cybersecurity standards or regulations	Currently, there are no regulatory standards for power facility resilience or reliability in Taiwan. However, TCC has proactively implemented preventive measures for cybersecurity and physical risks.		1.2.2 Ethical Management and Legal Compliance
	IF-EU-550a.2	(1) System Average Interruption Duration Index (SAIDI), (2) System Average Interruption Frequency Index (SAIFI), and (3) Customer Average Interruption Duration Index (CAIDI), inclusive of major event days	Criterion	Guan Tian Plant	2.3.1 Stable Power Supply
			SAIDI	0	
			SAIFI	0	
			CAIDI	0	
Activity Metrics	IF-EU-000.A	Number of (1) residential, (2) commercial, (3) industrial customers served	Total number of users (including data for Guan Tian Plant and TCC Green Energy): (1) Residential customers: N/A (2) Commercial customers: 6 users (3) Industrial customers: 14 users (4) Other: 2 users		-
	IF-EU-000.B	Total electricity delivered to: (1) residential, (2) commercial, (3) industrial, (4) all other retail customers, and (5) wholesale customers	Power supply to users (including the data of Guan Tian Plant and TCC Green Energy): (1) Residential: N/A (2) Commercial: 26 GWh (3) Industrial: 195 GWh (4) Other: 143 GWh		-
	IF-EU-000.C	Length of transmission and distribution lines	Not applicable		-
	IF-EU-000.D	Total electricity generated, percentage by major energy source, percentage in regulated markets	Total electricity generation from Guan Tian Plant and renewable energy projects was 348 GWh. Within this, thermal power generation accounted for 56%, solar power for 12%, and wind power, 32%. All TCC Group power generation is regulated by the Electricity Act.		2.3.1 Stable Power Supply
	IF-EU-000.E	Total wholesale electricity purchased	Purchased electricity for TCC's Taipei Office and the Guan Tian Plant was 3.93 GWh. Wholesale reselling does not apply; TCC's main businesses are power generation and investing in power plants. We do not conduct wholesale re-selling of electricity.		3.1.2 Energy Saving and Carbon Reduction

Taiwan Stock Exchange Corporation Rules Governing the Preparation and Filing of Sustainability Reports by TWSE Listed Companies Content Index

Attachment 1-7: Sustainability Disclosure Indicators for the Oil, Electricity and Gas Industry

No.	Indicator	Disclosure	Remarks
1	The number of oil refineries in densely populated areas	The Company does not have an oil refinery.	
2	Total water withdrawal and total water consumption	In 2024, total water withdrawal for the Guan Tian Plant was 798.31 thousand cubic meters (megaliters), and total water consumption was 737.68 thousand cubic meters (megaliters). There is no independent water meter at the TCC headquarters office, and the water bill is only apportioned by area. Hence, there is no exact water consumption data for reference.	See section 3.2.2
3	The weight of hazardous waste generated and the percentage of waste recycled	The waste produced by TCC's Guan Tian Plant is non-hazardous waste.	See section 3.2.1
4	Explanation of the number and rate of occupational accidents	TCC did not have any occupational injury incidents in 2024.	See section 4.3
5	Risk management policies for significant events	TCC has formulated the Risk Management Policy and Procedures, as well as the Risk Management Implementation Plan, to incorporate and control risks related to investment, operations, management, climate change, and unethical behavior. The Company reviews risk management measures regularly, and reports on the implementation and operation of these measures to the Board of Directors and the Audit Committee at least once a year.	See section 1.3.1 and 3.1.1
6	Production volume of main products by product category	The Company's main product is electricity; 195 GWh of electricity was sold by Guan Tian Plant in 2024.	See section 2.3.1

Attachment 2: Climate-Related Information for Listed Companies

1 Implementation Status of Climate-Related Information

Item	Implementation Status
1. Describe the board of directors' and management's oversight and governance of climate-related risks and opportunities.	See section 3.1.1.
2. Describe how the identified climate risks and opportunities affect the business, strategy, and finances of the business (short, medium, and long term).	See section 3.1.1 **Short term:** Changes in regulations and the increasing frequency of climate-related disasters may lead to higher operating costs, affect construction schedules, and influence investment strategies. The government of Taiwan has announced its 2050 net-zero emissions goals and, in 2023, enacted the Climate Change Response Act. The implementation policies related to this, and the overall domestic and international carbon reduction trend, are favorable for the Company's renewable energy business. To achieve the net-zero targets, the Ministry of Environment announced carbon fee regulations and collection rates in 2024, which are expected to increase operating costs for power plants. We have formulated a voluntary emissions reduction plan to mitigate impacts on operations and reduce overall carbon emissions. **Medium to long term:** The increased likelihood of extreme weather events and changes in climate patterns raise operating risks for businesses. Following the TCFD framework, the Company discloses climate-related financial impacts and manages climate risks and opportunities through governance, strategy, risk management, and by establishing metrics and targets. The Company also formulates response strategies and measures, closely monitors policy and regulatory developments, and adjusts our business strategies and development direction accordingly to ensure sustainable corporate growth.
3. Describe the financial impact of extreme weather events and transformative actions.	See section 3.1.1
4. Describe how climate risk identification, assessment, and management processes are integrated into the overall risk management system.	See section 1.3 and 3.1.1
5. If scenario analysis is used to assess resilience to climate change risks, the scenarios, parameters, assumptions, analysis factors and major financial impacts used should be described.	To gradually comply with the IFRS S1 and S2 disclosure requirements, the Company has conducted a qualitative financial impact assessment based on identified climate-related transition and physical risks: Transition risks may lead to financial impacts such as investment/development losses due to changes in policies or regulations. In response to climate change, such changes could also result in increased equipment upgrade costs and operating expenses. Physical risks may cause financial impacts; these include potential project delays or operating losses at power plants resulting from short-term increases in the frequency of climate-related disasters. In the long term, shifts in climate patterns may also result in power plant operating losses. In addition, the Company plans to implement the IFRS S1 and S2 adoption roadmap this year; we will proceed to assess the quantitative financial impacts of climate-related risks.

Item	Implementation Status
6. If there is a transition plan for managing climate-related risks, describe the content of the plan, and the indicators and targets used to identify and manage physical risks and transition risks.	As detailed in Chapter 3 the Company is committed to developing high-efficiency, low-emission power generation models, and to expanding our renewable energy business. The Company has established short-, medium-, and long-term targets for installed renewable energy capacity, as well as KPIs related to energy conservation and carbon reduction. Future business strategies will incorporate environmental sustainability measures, including increasing the co-firing ratio of alternative fuels, reducing coal consumption, conducting regular maintenance of existing equipment, and evaluating retrofits of generating units. These actions aim to improve energy resource efficiency and reduce greenhouse gas emissions. Additionally, the Company has formulated management plans and response measures for climate-related risks to address both physical and transition risks, thereby minimizing their potential impact on operations.
7. If internal carbon pricing is used as a planning tool, the basis for setting the price should be stated.	To implement carbon reduction measures, the Company plans to adopt an internal carbon pricing mechanism based on the projected increase in domestic carbon fee rates.
8. If climate-related targets have been set, the activities covered, the scope of greenhouse gas emissions, the planning horizon, and the progress achieved each year should be specified. If carbon credits or renewable energy certificates (RECs) are used to achieve targets, the source and quantity of carbon credits or RECs to be offset should be specified.	TCC has established climate adaptation and mitigation guidelines, as well as KPIs for them. These cover activities necessary for operations, including energy-saving performance, water conservation achievements, fuel substitution rate, greenhouse gas management, and the development of renewable energy. We have plans in place to promote the transition to net-zero and low-carbon operations, implement air pollution control technologies, manage waste, and maintain stable energy supply. Details regarding the scope of greenhouse gas emissions, planning horizon, and target setting can be found in Table 1-2 below. In addition to developing renewable energy, we have also established a subsidiary, TCC Green Energy, to do green electricity retailing. TCC Green Energy provides green electricity wheeling services and assists customers to obtain RECs.
9. Greenhouse gas inventory and assurance status, reduction goals, strategies, and specific action plans.	See section 3.1.2 See section 3.1.2 for details. TCC has conducted a greenhouse gas (GHG) inventory for the parent company and engaged an independent third-party verification agency to carry out external verification, in accordance with ISO 14064-1 and the regulations set by the Ministry of Environment. We expect external verification of the 2024 GHG inventory to be completed in 2025. TCC and our subsidiaries are also scheduled to complete a consolidated GHG inventory report and third-party verification in 2026, which will serve as the basis for the Company's short-, medium-, and long-term carbon reduction planning, and support our sustainable development and net-zero emissions goals.

Attachment 2: Climate-Related Information for Listed Companies

1-1 Greenhouse Gas Inventory and Assurance Status of the Company in the Most Recent Two Years

1-1-1 Greenhouse Gas Inventory Information

Specify the greenhouse gas emissions (in metric tons of CO_2e), intensity (metric tons of CO_2e per NT$1,000,000), and data coverage for the most recent 2 years.

The table below shows the greenhouse gas inventory information for TCC's Guan Tian Plant. TCC's Taipei Office and the subsidiaries listed in the consolidated financial statements will complete assurance in accordance with the timeline set in the Sustainable Development Roadmap for TWSE-listed/TPEx-listed Companies.

Region	Scope	2023	2024
TCC Taipei Office	Scope 1 (metric tons of CO_2e)	-	21
	Scope 2 (metric tons of CO_2e)	-	261
	Scope 3 (metric tons of CO_2e)	-	40
TCC Guan Tian Plant	Scope 1 (metric tons of CO_2e)	336,812	369,277
	Scope 2 (metric tons of CO_2e)	358	254
	Scope 3 (metric tons of CO_2e)	-	33
TCC (parent company)	Emission Intensity (metric tons of CO_2e/ NT$1,000,000)	142	63

Note:

(1) The Taipei Office began conducting a greenhouse gas inventory in 2024; therefore, only the inventory information for that year is disclosed. The 2024 data represents preliminary internal inventory results.

(2) National electricity carbon emission factor was 0.474 kg CO_2e/kWh for 2024.

(3) The types of gases include carbon dioxide (CO_2), methane (CH_4), nitrous oxide (N_2O), hydrofluorocarbons (HFCs), perfluorocarbons (PFCs), sulfur hexafluoride (SF_6), and nitrogen trifluoride (NF_3). In accordance with ISO 14064-1 materiality assessment, the Company voluntarily discloses Scope 3 (Category 3.3) emissions from employee commuting.

(4) TCC parent company emission intensity is calculated as total Scope 1 and 2 emissions divided by parent company revenue (in NT$ million). 2023 figures are based on the emissions of Guan Tian Plant; 2024 figures are based on the emissions of both headquarters and Guan Tian Plant.

1-1-2 Greenhouse Gas Assurance Information

Describe the assurance status for the most recent two years as of the annual report publication date, including the assurance scope, assurance organization, assurance standards, and assurance opinions.

The table below shows the greenhouse gas verification status for TCC's Guan Tian Plant and Headquarters. The subsidiaries listed in the consolidated financial statements will complete assurance in accordance with the timeline set in the Sustainable Development Roadmap for TWSE-listed/TPEx-listed Companies.

Year	Verification scope	Verifying organization	Verification standards	Greenhouse gas verification Statement
2023	TCC's Guan Tian Plant	SGS Taiwan Ltd.	Compliance with the following standards is required for the verification of greenhouse gases: • ISO 14064-1: 2018/CNS 14064-1: 2021 Part 1: Specification with guidance at the organization level for quantification and reporting of greenhouse gas emissions and removal • Ministry of Environment's Regulations Governing the Inventory, Registration and Verification of Greenhouse Gas Emissions (Sept. 14, 2023) • Ministry of Environment's Guidelines for Greenhouse Gas Emissions Inventory (2024 edition) • Ministry of Environment's Guidelines for the Verification of Greenhouse Gases (Dec. 2010) • Regulations in the National Greenhouse Gas Registry Platform	The verification of the GHG emissions was performed in accordance with ISO 14064-3:2006. Based on the procedures performed, we have obtained a reasonable level of assurance that the reported Scope 1 and Scope 2 GHG emissions are free from material misstatement and conform to the requirements approved by the competent authority.
2024	TCC's Guan Tian Plant and Headquarters	Taiwan Electric Research and Testing Center	Compliance with the following standards is required for the verification of greenhouse gases: • ISO 14064-1: 2018/CNS 14064-1: 2021 • Ministry of Environment's Regulations Governing the Inventory, Registration and Verification of Greenhouse Gas Emissions • Ministry of Environment's Guidelines for Greenhouse Gas Emissions Inventory (2024 edition) • Ministry of Environment's Guidelines for the Verification of Greenhouse Gases (June 2024)	The verification of the GHG emissions was performed in accordance with ISO 14064-3:2019. Based on the procedures performed, we have obtained a reasonable level of assurance for the reported Scope 1 and Scope 2 GHG emissions, and a limited level of assurance for the reported Scope 3 GHG emissions. The verified GHG emissions are free from material misstatement and conform to the requirements approved by the competent authority.

1-2 Greenhouse Gas Reduction Goals, Strategies, and Specific Action Plans

Specify the base year and its data for greenhouse gas reduction, reduction targets, strategies, specific action plans, and the progress toward achieving the reduction targets.

(1) Greenhouse gas reduction base year

TCC's Guan Tian Plant is subject to the Ministry of Environment's Regulations Governing the Inventory, Registration and Verification of Greenhouse Gas Emissions (second round), with the first required reporting year (2014) set as the base year. TCC began conducting greenhouse gas (GHG) inventories for the parent company in 2024, and thus has designated 2024 as the base year for the parent company. Subsidiaries included in the consolidated financial statements will complete their inventories in accordance with the regulatory schedule.

(2) Greenhouse gas emission reduction targets, strategies, specific action plans, and progress toward targets

In response to climate change and global energy trends, the Company has adopted two main approaches, "mitigation" and "adaptation", to reduce direct and indirect impacts from climate change on our operations. To align with Taiwan's 2050 net-zero emissions targets, we have planned GHG management and initiatives as follows:

1. Establish a GHG management mechanism, promote inventory and verification processes, and build a comprehensive database, which will facilitate formulating and then validating our reduction goals.
2. Continue implementing energy-saving and carbon reduction measures, including equipment upgrades, process improvements, and electricity conservation.
3. Expand renewable energy-related businesses, including investment, development, project contracting, O&M, green electricity retailing, and emerging business models such as energy storage and ancillary services.
4. Evaluate the feasibility of implementing low- and negative-carbon technologies, such as carbon capture, utilization, and storage (CCUS), and hydrogen co-firing in gas-fired power units, to achieve the low-carbon transformation.

The Company completed our group-wide GHG inventory and verification plan in 2022 in accordance with the competent authority's timeline; these were then approved by the Board of Directors. In 2023, the Company established an internal inventory mechanism and information system, and developed a GHG Inventory Management Procedure. In 2025, TCC (the parent company) will complete our 2024 GHG Inventory Report and third-party verification. In 2026, the Company and our consolidated subsidiaries will complete a group-wide GHG Inventory Report and third-party verification to support short-, medium-, and long-term reduction planning, thereby fulfilling our sustainability and net-zero goals.

Our progress toward achieving the annual/reduction targets is as follows:

2024 targets	2024 target achievement status	2025 targets	Long-term targets
1. Fuel substitution rate (SRF and scrap tires) at Guan Tian Plant ≥30% 2. Average electricity saving rate at Guan Tian Plant from 2015 to 2024: ≥1%	1. Completed emissions source identification, data modeling, and materiality principles for TCC (parent company); conducted annual inventory. 2. Achieved 29.77% alternative fuel substitution rate at Guan Tian Plant, reducing 48,274 metric tons of coal, equivalent to 97,851 metric tons of CO_2e. After accounting for emissions from alternative fuels, net GHG reduction was 1,133 metric tons CO_2e. 3. Average electricity saving rate at Guan Tian Plant from 2015 to 2024: 1.28% (2024 rate: 0.73%) 4. Equipment upgrades at Guan Tian Plan saved about 88 MWh of electricity and 2,068 metric tons of coal, reducing approximately 4,295 metric tons CO_2e.	1. Alternative fuel substitution rate (SRF and scrap tires) ≥30% 2. Average annual electricity saving rate for 2025: ≥1.5% 3. Reduce Guan Tian Plant's 2025 carbon emissions per NT$1 million revenue by 35% compared to 2014 (base year)	1. Reduce Guan Tian Plant's 2030 carbon emissions per NT$1 million revenue by 50% compared to 2014 (base year) 2. Average annual electricity saving rate from 2025 to 2030: ≥1.5%

Limited Assurance Report by Independent Auditor

Deloitte.

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會計師有限確信報告

台灣汽電共生股份有限公司　公鑒：

台灣汽電共生股份有限公司民國 113 年度(西元 2024 年度)永續報告書，業經本會計師針對台灣汽電共生股份有限公司所選定之績效指標執行確信程序竣事，並出具有限確信報告。

確信標的資訊與適用基準

台灣汽電共生股份有限公司所選定之績效指標（以下簡稱標的資訊）與適用基準，請詳附件一「確信項目彙總表」。

管理階層之責任

管理階層之責任係依照臺灣證券交易所「上市公司編製與申報永續報告書作業辦法」、全球永續性報告協會（Global Reporting Initiative，GRI）發布之通用準則、行業準則及主題準則、永續會計準則理事會（Sustainability Accounting Standards Board，SASB）準則及台灣汽電共生股份有限公司自行設計之基準編製標的資訊，且維持與標的資訊編製有關之必要內部控制，以確保標的資訊未存有導因於舞弊或錯誤之重大不實表達。

會計師之責任

本會計師之責任係依照確信準則 3000 號「非屬歷史性財務資訊查核或核閱之確信案件」規劃及執行有限確信案件，基於所執行之程序與所獲取之證據，對標的資訊（詳附件一）是否未存有重大不實表達取得有限確信，並出具有限確信報告。相較於合理確信案件，有限確信案件所執行程序之性質及時間不同，其範圍亦較小，故於有限確信案件所取得之確信程度亦明顯低於合理確信案件中取得者。

本會計師係基於專業判斷規劃及執行確信程序，以獲取相關標的資訊之有限確信證據，且任何內部控制均受有先天限制，因此未必能查出所有業已存在之重大不實表達。本會計師執行確信程序包括：

- 對參與編製標的資訊之管理階層及相關人員進行查詢，以瞭解編製標的資訊之政策、流程、內部控制及資訊系統，以辨認可能存有重大不實表達之領域；
- 對標的資訊選取樣本進行檢查、驗算、重新執行、觀察及分析性程序等程序，以取得有限確信之證據。

先天限制

由於諸多確信項目係屬非財務資訊，相較於財務資訊之確信受有更多先天限制，故該等資訊之相關性、重大性與正確性之解釋可能涉及更多管理階層之重大判斷、假設與解釋，不同利害關係人對該等資訊亦可能有不同之解讀。

獨立性及品質管理規範

本會計師及所隸屬會計師事務所已遵循會計師職業道德規範中有關獨立性及其他道德規範之規定，該規範之基本原則為正直、公正客觀、專業能力及專業上應有之注意、保密與專業行為。

本會計師所隸屬會計師事務所適用品質管理準則 1 號「會計師事務所之品質管理」，該品質管理準則規定會計師事務所設計、付諸實行及執行品質管理制度，包含與遵循職業道德規範、專業準則及所適用法令有關之政策或程序。

確信結論

依據所執行之程序與所獲取之證據，本會計師並未發現標的資訊在所有重大方面有未依照適用基準編製而須作修正之情事。

其他事項

本確信報告出具後，台灣汽電共生股份有限公司對任何確信標的資訊或適用基準之變更，本會計師將不負就該等資訊重新執行確信工作之責任。

勤業眾信聯合會計師事務所

會計師　陳　招　美

陳招美

中　華　民　國　114　年　5　月　8　日

附件一

確信項目彙總表

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<tr><th>違規單位</th><th>違反事由說明</th><th>條文</th><th>罰鍰（元）</th><th>改善作法</th></tr>
<tr><td rowspan="2">官田廠</td><td>氧氣低濃度誤差值超過法定標準</td><td>空氣污染防制法第 23 條第 2 項
固定污染源空氣污染物連續自動監測設施管理辦法第 17 條第 1 項</td><td>150,000</td><td>更新氧氣分析儀測量單元後，測值測試已正常</td></tr>
<tr><td>1. OP DAHS 設定與確認報告書不相符
2. OP 原始數據狀態碼未依規定標示
3. RATA 測項未依檢測報告修正 BAF</td><td>空氣污染防制法第 23 條第 2 項
固定污染源空氣污染物連續自動監測設施管理辦法第 4 條第 1 項、第 2 項及第 17 條第 2 項</td><td>300,000</td><td>已依規定修正數據及程式</td></tr>
</table>
</td><td>1.2.2 誠信經營與法規遵循</td><td>GRI 2-27</td></tr>
</table>

<table>
<tr><th>編號</th><th>標的資訊</th><th>對應章節</th><th>適用基準</th></tr>
<tr><td>2</td><td>
單位：百萬公升
<table>
<tr><th>項目</th><th>用水來源</th><th>2024年</th><th>計算方式說明</th></tr>
<tr><td rowspan="3">取水</td><td>原水（水庫）</td><td>188.97</td><td>運轉課每日抄表之數據</td></tr>
<tr><td>自來水</td><td>609.34</td><td>運轉課每日抄表之數據</td></tr>
<tr><td>總取水量</td><td>798.31</td><td>原水（水庫）+自來水</td></tr>
<tr><td></td><td>排水量</td><td>60.63</td><td>廢水量+超純水販售量</td></tr>
<tr><td></td><td>耗水量</td><td>737.68</td><td>總取水量-總排水量</td></tr>
</table>
</td><td>3.2.2 水資源管理</td><td>上市公司編製與申報永續報告書作業辦法第 4 條附表一之七編號二</td></tr>
<tr><td>3</td><td>
單位：公噸
<table>
<tr><th>廢棄物</th><th>重量
2024 年</th></tr>
<tr><td>再生利用（R 類、D 類飛灰及底灰）</td><td>22,879.86</td></tr>
<tr><td>再使用、其他回收作業</td><td>0</td></tr>
<tr><td>焚化處理（含能源回收）（生活垃圾）</td><td>1.20</td></tr>
<tr><td>掩埋+熱處理（污泥）</td><td>14.14</td></tr>
<tr><td>其他處置作業-熱處理
（廢保溫材、廢耐火材）</td><td>6.16</td></tr>
<tr><td>總重量</td><td>22,901.36</td></tr>
</table>
</td><td>3.2.1 廢棄資源循環經濟</td><td>GRI 306-3</td></tr>
</table>

編號	標的資訊			對應章節	適用基準
4					
	員工		官田廠		
	工作總時數	男	86,992		
		女	6,024		
		合計	93,016		
	職業傷害死亡比率	男	0		
		女	0		
		合計	0		
	嚴重職業傷害比率	男	0		
		女	0		
		合計	0		
	可記錄之職業傷害比率	男	0		
		女	0		
		合計	0		
	損工日數率（LDR）	男	0		
		女	0		
		合計	0		
	缺勤率（AR）	男	0		
		女	0		
	虛驚事故量	男	0		
		女	0		
		合計	0		
	虛驚事故率（NMFR）	男	0		
		女	0		
		合計	0	4.3 健康職場	GRI 403-9
	其他工作者（承包商／供應商）		官田廠		
	工作總時數	男	60,364		
		女	7,322		
		合計	67,686		
	職業傷害死亡比率	男	0		
		女	0		
		合計	0		
	嚴重職業傷害比率	男	0		
		女	0		
		合計	0		
	可記錄之職業傷害比率	男	0		
		女	0		
		合計	0		
	損工日數率（LDR）	男	0		
		女	0		
		合計	0		
	虛驚事故量	男	0		
		女	0		
		合計	0		
	虛驚事故率（NMFR）	男	0		
		女	0		
		合計	0		

編號	標的資訊							對應章節	適用基準
5									
	台汽電	男性			女性				
	訓練時數（小時）	總時數	總人數	平均每人受訓時數	總時數	總人數	平均每人受訓時數		
	主管	230.49	9	25.61	96.71	2	48.36		
	基層幹部	741.87	17	43.64	269.65	9	29.96		
	一般同仁	3,970.49	58	68.46	2,131.94	33	64.60		
	總計	4,942.85	84	58.84	2,498.3	44	56.78	4.1.3 人才培育	GRI 404-1
	星能股	男性			女性				
	訓練時數（小時）	總時數	總人數	平均每人受訓時數	總時數	總人數	平均每人受訓時數		
	主管	15	10	1.50	0	0	0		
	基層幹部	449	58	7.74	104.5	7	14.93		
	一般同仁	1,436	91	15.78	695	46	15.11		
	總計	1,900	159	11.95	799.5	53	15.08		


TCC