



(Incorporated in the Cayman Islands with limited liability) Stock Code: 01600



2022

ENVIRONMENTAL, SOCIAL AND GOVERNANCE REPORT

Tian Lun Gas Holdings Limited

2022

Environmental, Social and Governance Report



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About the Report

Tian Lun Gas Holdings Limited (the "Company") (1600. HK) hereby presents the 2022 Environmental, Social and Governance Report (the "Report" or the "ESG" Report) of the Company and its subsidiaries (collectively, the "Group" or "Tian Lun Gas"). The Report aims to disclose the ESG practices and performance of the Group in 2022 in an open and transparent manner to keep all stakeholders updated.



Reporting Scope

The Report covers the Group's principal businesses including its investment, operation and management of gas pipeline connection, transportation, distribution and sales of gas, construction and operation of gas filling stations, and production and sales of liquefied natural gas ("LNG") in China. The time period covered by this Report is from January 1, 2022 to December 31, 2022 (the "Reporting Period"), and some contents are beyond the above period. There are no significant adjustments in the reporting scope compared with the 2021 ESG Report.

Reference

The Report is prepared in accordance with the Environmental, Social and Governance Reporting Guide ("ESG Reporting Guide") in Appendix 27 to the Rules Governing the Listing of Securities on the Stock Exchange of Hong Kong Limited ("HKEX").

Data

All financial data in the Report are derived from the 2022 Annual Report. Other data are from the Company's internal management system and statistics, involving some historical data. All Data and figures regarding prices are reported in RMB in the Report, unless otherwise stated.

Report Availability

The Report is available in an online version which can be viewed or downloaded on the website of the Company (www. tianlungas.com) and the HKEX website (www.hkexnews.hk).



Message From Our Chairman



The year 2022 was marked by significant challenges and obstacles. The outbreak of the Russo-Ukrainian conflict at the beginning of the year not only reshaped the global geopolitical landscape but also affected the global energy supply and demand. In a "turbulent international environment", China took the initiative to introduce a host of measures to secure people's livelihoods, increase consumption, and stabilise economic growth. Despite the complex internal and external environment, China managed to overcome obstacles and achieve positive growth in the past year.

Meanwhile, China advanced its goals of carbon peaking and carbon neutrality by ensuring energy security and restructuring the mix of energy. As a publicly listed company primarily engaged in urban pipeline gas operations, Tian Lun Gas is committed to becoming a leading supplier and service provider of green and low-carbon energy in China. Guided by the mission of "developing clean energy to improve our living environment", we prioritise high-quality development of our urban gas business while continuously innovating new ways of low-carbon energy supply. The Group has actively pushed forward projects such as coal-to-gas switching and gas-electric coordination, to achieve an integration of economic and social benefits.

Throughout the year, the Group infused sustainable development into our business operations by continuously optimising the corporate governance system and ensuring a sound and comprehensive management framework for sustainable development. In 2022, the Group strengthened corporate governance by carrying out an internal audit to thoroughly and systematically evaluate corporate risks and revising the *Violations and Penalties Rules of Tian Lun Gas* to reinforce anti-corruption efforts.

Throughout the year, the Group insisted on safety as the bottom line of production and operation. We guaranteed the source of energy supply, established a long-term safety control mechanism, and embedded safety awareness into the whole process of corporate operation. In 2022, we further specified management policies related to sources of gas to safeguard the gas supply. We continued to promote a trinity safety production management structure consisting of the leading organisation, supervising organisation, and supporting organisation, conducted hazard identification and risk assessment across all businesses, and provide safety awareness training and emergency drills for operators to protect occupational health and safety of our employees. As of the end of the reporting period, Tian Lun Gas has maintained zero work-related death for three consecutive years.

Throughout the year, in response to the national "dual carbon" goals, the Group set up the 2022-2024 strategic development plans and goals and delivered more clean energy, ushering in a new era of development. In 2022, the Group established and enhanced operational mechanisms, elevated resource management capabilities, and promoted green office practices within the organisation. Following the framework and recommendations of the Task Force on Climate-related Financial Disclosures (TCFD), the Group enhanced our capacity to address climate change from four dimensions including governance, strategy, risk management, and indicators and targets, and meanwhile made progress in developing low-carbon energy businesses. As of the end of the reporting period, the Rural Gasification Project has supplied gas to around 2 million households, resulting in a reduction of 1.1893 million tons of greenhouse gas emissions.

Throughout the year, the Group adhered to a people-oriented approach with a focus on building and improving our talent management system and talent development mechanism. With the philosophy of "developing and enjoying Tian Lun together", the Group continued to create a more fair, just, diverse, and inclusive work environment. In 2022, we recruited a large number of outstanding talents, safeguarded the legitimate rights and interests of employees, and improved their sense of happiness and gain. At the same time, we strengthened our training and promotion systems by providing 109 training courses for all employees, diverse labour unions as well as recreational and sports activities to help employees realise their value and feel the care of the Group.

Throughout the year, the Group shouldered corporate social responsibility and practised the spirit of volunteerism. We pushed forward efforts on rural revitalisation, provided assistance and charity donations to the society, and established good relations with local communities through biodiversity protection and land utilisation. In 2022, the Group made charitable donations of RMB912,000 in total.

Looking ahead, Tian Lun Gas remains committed to upholding the sustainable development strategy, seizing the opportunities of low-carbon and green development, and striving to improve our core competitiveness. We will also engage stakeholders from all sectors of society to explore a high-quality development model that integrates governance, environment, society, etc., to showcase the new charm of Tian Lun Gas.

ESG Statement From the Board of Directors



ESG Statement from the Board of Directors

Tian Lun Gas recognises the importance of ESG to our long-term stable operation. We have established an effective ESG management mechanism and governance mechanism to promote the harmonious integration of Tian Lun Gas with the environment and society, and create environmental, social, and corporate values in a sustainable manner.

Tian Lun Gas established a three-level ESG management structure consisting of "Governance, Management, and Execution" to ensure that ESG-related practices are well implemented. The Board of Directors, as the highest decision-making body on ESG matters, assumes full responsibility for ESG strategies. The Board of Directors has set up an ESG Committee responsible for guiding ESG-related issues. At the management level, an ESG management group has been set up that is comprised of the heads of all functional departments and/or business departments. The ESG management group is responsible for guiding and promoting ESG-related matters. At the execution level, an ESG working group has been set up that is led by the Investor Relations Department and comprised of the staff of all functional departments and/or business departments. The ESG working group is responsible for communicating and coordinating with all business departments and functional departments to promote specific ESG work. The relevant staff of all business departments and functional departments should assist in the implementation of ESG matters.

Tian Lun Gas regards environmental, social, and governance (ESG) work as an integral part of corporate strategy development and management. In 2022, Tian Lun Gas was committed to delivering clean energy in accordance with China's "dual carbon" goals, energy restructuring, and rural revitalisation strategy. We continued to promote programs including rural gasification and gas-electric coordination, to build a clean, low-carbon, safe, and efficient energy system and become a main driver of energy restructuring in rural areas.

Approved by the Board of Directors, the Report offers full visibility into the ESG progress and achievements of Tian Lun Gas in 2022. The Board of Directors, along with all directors of the Company, assures that the Report does not contain any false or misleading statements or omit any material facts, and shall shoulder individual and joint responsibility for the truthfulness, accuracy, and completeness of the contents of the Report.



About Us

Tian Lun Gas, established in 2002, is one of the earliest enterprises specialising in urban gas operation, township gas operation, long-haul pipeline and industrial direct supply business, gas filling station, and LNG plant business. On November 10, 2010, the Company was listed on the Mainboard of HKEX with stock code 1600. As of December 31, 2022, Tian Lun Gas has successfully operated 69 urban gas projects, 1 LNG plant and 6 long-haul pipelines operating in 16 provinces.

As the energy industry accelerates its green transition, Tian Lun Gas will continue to practice the vision of "committing to the cause of people's livelihood and building a brand with enduring success", and honour the mission of "developing clean energy to improve our living environment". We will proactively adapt to market trends and help to achieve China's goals of carbon peak and carbon neutrality. While focusing on the core business of providing high-quality urban gas, we will further expand and innovate the low-carbon energy business, and aim to become a first-class provider of green and low-carbon energy products and services in China.

Tian Lun Gas's ESG-related milestones in 2022



"Outstanding ESG Company Award" of the tenth Top 100 Hong Kong Listed Companies Awards



"Outstanding Leader of the Year" of outstanding listed companies in Greater China at the "Golden Grid Award" of Gelonghui -Mr. Zhang Yingzen



"Best CEO" at the 7th "Golden Hong Kong Stock" Awards -Mr. Xian Zhenyuan



"Best Energy and Resource Company" at the 7th "Golden Hong Kong Stock" Awards



"Best ESG Award" at the 7th

"Golden Hong Kong Stock"

Awards



"Best IR Team" at the 7th
"Golden Hong Kong Stock"
Awards



ESG Management

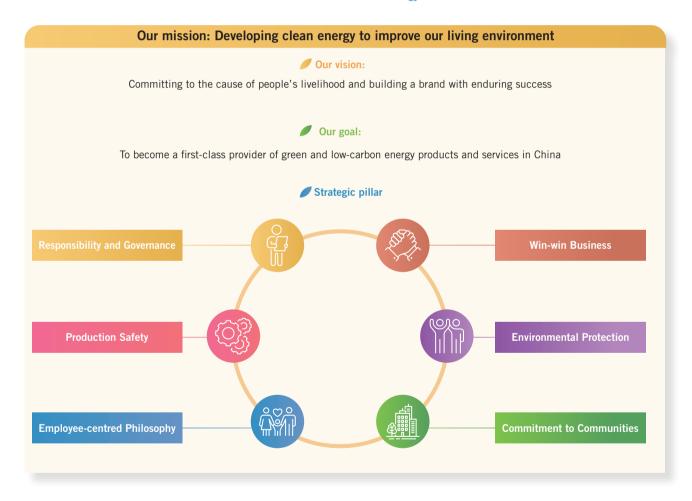
ESG Management

Tian Lun Gas regards ESG management as the anchor of the Group's sustainable development. We adopt ESG approaches including formulating ESG strategies, optimising ESG management systems, and facilitating communication with stakeholders to develop an efficient ESG framework that bolsters the steady growth of the Group in the long run.

ESG STRATEGY

Tian Lun Gas has incorporated its mission and development philosophy into its ESG vision and goals, and defined six key pillars based on materiality — responsibility and governance, win-win business, production safety, environmental protection, employee-centred philosophy, and commitment to communities. The Group also refines medium- and long-term roadmaps, key performance indicators and corresponding targets and practices.

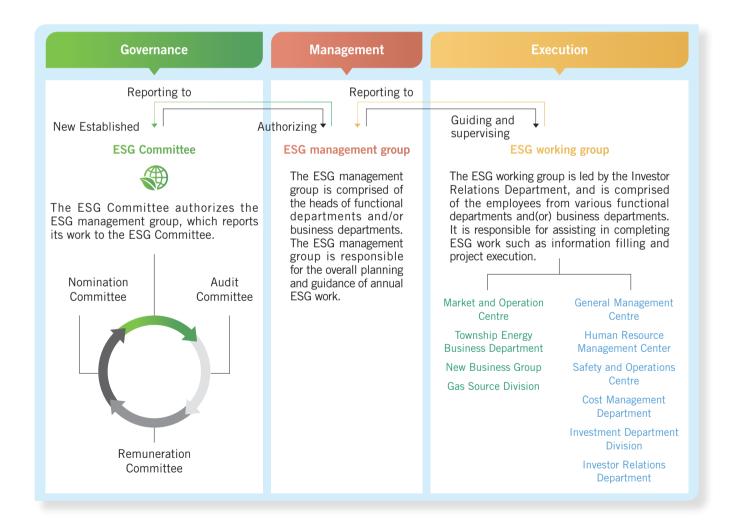
Tian Lun Gas's ESG strategy



ESG MANAGEMENT SYSTEM

To secure the Group's stability and efficiency, Tian Lun Gas designed a three-level ESG framework consisting of governance, management and execution with well-defined functions and clear responsibilities.

The governance layer of Tian Lun Gas' ESG management system refers to the ESG Committee. The Board of Directors, as the highest decision-making body on ESG matters, has set up an ESG Committee responsible for guiding ESG-related issues. The ESG management group comprises heads of various functional departments and/or business departments, which is responsible for guiding and promoting actions under ESG issues, and regularly reporting to the ESG Committee. The ESG working group is led by the investor relations department, consisting of employees across different functions and business departments. Therefore, the working group facilitates cross-functional collaboration on ESG issues and cooperates with relevant employees to put information together and put projects in place.





ESG Management

Stakeholder engagement

Suggestions and opinions from all external and internal stakeholders are valuable to us. Tian Lun Gas aims to incorporate these insights into our sustainable development, and therefore we regularly engage with stakeholders through multiple ways of communication to align with their expectations and promptly respond to their demands.

Stakeholders	Expectations and demands	Ways of communication	Responses
Shareholders/investors	Corporate governance Anti-corruption and integrity Revenue and performance Intellectual property protection Product and technology innovation	 Results announcements General meetings Roadshows Interim and annual reports Project research 	Disclosure of announcements, shareholder meeting resolutions and financial reports in accordance as scheduled Voluntarily disclosing information Improving profitability Organising frequent site research projects
Customers	Safe and stable gas supplyCustomer servicesPrivacy protection	Customer satisfaction surveys Complaints and advice from multiple channels	 Conducting regular reviews on customer safety Levelling up service management Protection of customer privacy to be translated into practical action
Employees	 Protection of employees' rights and interests Equal and inclusive recruitment Career training and growth Occupational health and safety 	 Staff representatives Internal and external employment training Employee activities 	 Safeguarding employees' rights and interests Establishing a fair salary and promotion mechanism Providing more forms and methods of training Focusing on the health of employees Building a safe and healthy working environment
Government/ regulators	 The ban on forced labour and child labour Emergency management Anti-unfair competition practices 	Institutional visitsGiving work reportsDaily communicationInformation disclosure	Regulatory compliance Accepting government inspections and investigations Truthfully and accurately disclosing information
Suppliers/ Partners	Supply chain management Industry cooperation	Supplier discussion meetingsDaily communicationStrategic cooperation	Public biddingFulfilling contracts
Environment	 Use of resources Emissions Environmental management Land use and conservation Response to climate change 	 Environmental impact assessment and external communication Environmental management 	 Providing clean energy Promoting resource conservation
Community	 Rural revitalisation Protection of the rights and interests of operation locations and local residents Community relations Social welfare 	Charitable eventsVolunteer activities	 Deeply engaged in charitable events Fostering positive community relations
Media	 Information transparency Seamless communication Maintaining media relations 	 Press conferences Media project investigations Management interviews 	 Holding regular press conferences Releasing business updates on the official website Response to media inquiries Constant communication with the media

ESG REPORTING PRINCIPLES

Materiality: Tian Lun Gas identifies ESG issues relevant to its industry and business features based on the ESG Reporting Guide of the Hong Kong Stock Exchange. Through materiality assessment, Tian Lun Gas ensures that the information disclosure covers all focal points that are of concern to Tian Lun Gas and its stakeholders. In 2022, the Group comprehensively assessed and reviewed the disclosure requirements from regulatory bodies and the assessment standards from the capital market, and compared with peers on the shifting trend of ESG issues. As a result, 26 material ESG issues were identified. Considering the significance of each topic to sustainable development, we conducted a survey among 9 of our major stakeholders, including the government, employees and customers, to rate these ESG issues on their materiality, and ultimately concluded with this materiality matrix of our ESG issues in 2022.

Assessment of ESG Issues

Collecting related issues

The identification of material issues was conducted by independent third-party consultants of the Group. There were 26 ESG issues collected for the assessment, which were identified through a wide range of data sources, including the ESG Reporting Guide, stakeholder engagement and their opinions, policies and management strategies of the Group, industry benchmarking, ESG rating system analysis, internal publications and media coverage.

Investigating the degree of concern

Tian Lun Gas conducted a questionnaire survey among 9 major stakeholder groups and invited stakeholders to prioritise all issues from their perspectives.

Analyzing the operational impact

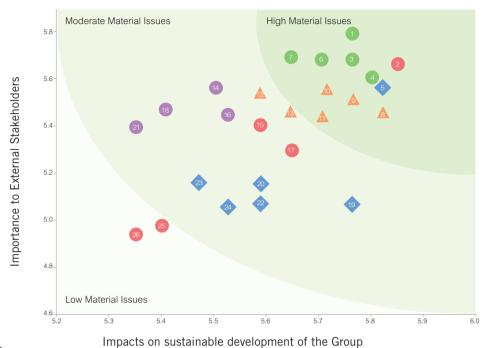
Consulting senior management for the opinions on the materiality of the issues to Tian Lun Gas from the Group's perspective.

Confirming issue priority

These issues were analysed in terms of their importance to each stakeholder and Tian Lun Gas. They were expressed in a matrix. This matrix of material issues will serve as an important reference for future strategy formulation, goal setting and continuous information disclosure.



ESG Management



- Environmental issues
- ▲ Social responsibilities
- Corporate governance
- Products and services
- Employee responsibilities

Tian Lun Gas's materiality matrix of ESG issues in 2022

Ranking of Tian Lun Gas's material ESG issues

Number	Issues	Number	Issues
1	1 Protection of employees' rights and interests		Rural revitalisation
2	Safe and stable gas supply	15	Customer services
3	Equal and inclusive recruitment	16	Protection of the rights and interests of operation locations and local residents
4	The ban on forced labour and child labour	17	Customer privacy protection
5	Emergency management	18	Community relations
6	Career training and growth	19	Use of resources
7	Occupational health and safety	20	Emissions
8	Corporate governance	21	Social welfare
9	Anti-corruption	22	Environmental management
10	Revenue and performance	23	Land use and conservation
11	Supply Chain Management	24	Response to climate change
12	Intellectual property protection	25	Industry cooperation
13	Anti-unfair competition practices	26	Product and technology innovation

Quantification: Tian Lun Gas has designed an approach to collect ESG data from across the headquarters and various subsidiaries. We also collect statistics in alignment with key disclosure indicators in the ESG Reporting Guide — covering all "environmental" indicators and some "social" indicators — and compile them within this year's ESG report for disclosure. Quantitative ESG data can be found in various sections of this report.

Balance: This report has been reviewed and confirmed by the Board of Directors of the Group. The report aims for absolute objectivity and transparency, and therefore the ESG information disclosed can all be found and verified through our official information disclosure channels and social media.

Consistency: This report adopts the same statistical approach for information disclosure and there are no significant adjustments to the scope of ESG reporting. ESG data comparison of the past years is included in various sections of this report.

ESG DEVELOPMENT GOALS AND KEY PERFORMANCE INDICATORS (KPIS)

With our commitment to environmental protection, Tian Lun Gas proactively supports the Sustainable Development Goals (SDGs) of the United Nations. We've identified the top 10 SDGs that are most relevant to our business and are committed to supporting and implementing these SDGs by integrating them with the Group's development strategy and business development.

ESG development goals and KPIs in 2022

Strategy pillar	Issues	UN SDGs	Goals of Tian Lun Gas	KPIs in 2022
Responsibility and governance	Corporate governance Anti-corruption Anti-unfair competition practices	9 MODERNI PROVINCE AND REFERENCE 12 RELOCABIL CONSUMERINA AND PRODUCTION CONS	To establish a scientific and stable corporate governance structure, improve internal risk management mechanisms, implement business ethics standards, and ensure compliance in business operations.	 Women represented 50% of the Board; Established three lines of defence for risk management consisting of the functional departments and/or business departments, the risk control department, and the audit and inspection department; Conducted internal audits to manage risks and completed operational audits of 14 subsidiaries; 100% of suppliers and contractors signed the Integrity and Self-discipline Commitment and the Integrity Agreement.
Win-win business	 Supply chain management Customer privacy protection Product and technology innovation 	9 MODERY RODVINTON AND REPORTED 12 RESPONSES AND PRODUCTIVE AND PRODUCTIVE	To map out technology innovation through research and development, optimise customer services, build a cooperation platform for the comprehensive development of the upstream and downstream industrial chain, and achieve win-win results.	 Invested over RMB6 million in R&D Resolved 100% of customer complaints and reached 90% of the customer satisfaction rate; Eslink, a cloud-based customer service platform, has covered 100% of the Group's business; 135 suppliers for collective procurement have got ISO9001, ISO14001 and ISO45001 certifications.



ESG Management

Strategy pillar	Issues	UN SDGs	Goals of Tian Lun Gas	KPIs in 2022
Production safety	Safe and stable gas supply Customer privacy protection Customer services Occupational health and safety	3 GOOD HEATH 9 INDISENCE HIS MANUAL CITES 11 SUCCESSANCE HIS MANUAL CITES AND COMMUNITIES 12 CONSOMERIE ON AND PRODUCTION AND PRODUCTION COO	To strengthen the safety management system, safeguard the health of employees and the safety of users, achieve a stable gas supply, and maintain a safe environment for business operations.	 Invested a total of RMB51.34 million in safety investment and appointed 90 production safety management personnel; Identified a total of 67,974 accident hazards, achieved a rectification rate of 100% and registered 0 safety accidents; Carried out 1,398 safety emergency drills and 50,307 hours of safety training with a total number of 41,045 people for 14.99 hours per capita; Achieved 0 work-related fatalities for 3 years in a row; Conducted household safety inspections in 1.49 million households, achieving 96% of the goal of 1.55 million households.
Environmental protection	 Environmental management Response to climate change Product and technology innovation Use of resources Emissions 	7 AFFRENALE AND CLAN DESIGN. 9 AND STATEMENT MENONITOR 12 RESPONSIBLE OCCUMPNON AND PRODUCTION AND PROPERTY OF P	To optimise production techniques and environmental management capabilities, reduce environmental impacts across various business sectors, improve the efficiency of resource use, and actively respond to climate change.	 Zero cases of environmental management penalties; A total of 32 gasoline vehicles were phased out by natural gas ones; Identified climate change-related risks and developed countermeasures based on TCFD guidelines; Total natural gas users by rural gasification reached nearly 2 million; 100,000 potential users with 4,856 households signed, equivalent to approximately 125MW of installed photovoltaic capacity.

Strategy pillar	Issues	UN SDGs	Goals of Tian Lun Gas	KPIs in 2022
Employee- centred philosophy	Protection of employees' rights and interests Equal and inclusive recruitment The ban on forced labour and child labour Career training and growth	1 POVERTY A COOD HEALTH 3 GOOD HEALTH 4 PROJECTS FROMERS 10 REDUCTS FROMERS 10 REDUCTS FROMERS 10 REDUCTS	To improve the employment management system, safeguard employees' rights in accordance with the law, build a harmonious, sound and resilient labour relationship, and grow together with the employees.	 The total number of employees hit 3,355, including 569 new hires in 2022; Offered training for all employees, including 109 courses enrolled by 100% of employees, with 162,804 training hours in total and 48.53 hours per person; Selected 38 employees as management trainees with a transparent selection process; Added the post of the Director of the Female Employee Committee in the labour union to protect the rights of the Group's female employees.
Commitment to communities	Rural revitalisation Community relations Protection of the rights and interests of operation locations and local residents Social welfare Land use and conservation	1 POURTY THE PROJECTION 11 SIGNAMUS CITIES 12 REPROMERE DORSGUEPHON AND PRODUCTION AND PRODUC	To engage with social welfare activities, undertake corporate citizenship responsibilities, and build positive community relations.	 Donations of RMB912,000 in various categories; 1,705 jobs were provided for rural residents.





Material issues addressed in this section	HKEX ESG indicators involved in this section	Capital market issues discussed in this section
 Corporate governance Anti-corruption Anti-unfair competition practices 	B5 Supply chain management B7 Anti-corruption	 The independence of the Board of Directors The leadership of the Board of Directors The diversity of the Board of Directors Risk management framework ESG risk identification and response Business ethics supervision Bribery and anti-corruption policies Periodic ethical standards audits Whistle-blower protection Ethical standards training for employees Supplier anti-corruption policy Anti-money laundering policy
SDGs covered in this section	9 MOSTIN; ROMATEM AND INFRASTRICTURE	12 RESTONATION AND PRODUCTION AND PR

Performance highlights:

- Women represented 50% of the Board;
- Three lines of defence for risk management are established: the functional and business department, the risk control department, and the audit and inspection department;
- Conducted internal audits to manage risks and completed operational audits of 14 subsidiaries;
- 100% of the suppliers and contractors have signed the *Integrity and Self-discipline Commitment and the Integrity Agreement.*

Tian Lun Gas regards corporate governance as a key factor in compliance operations, and continues to promote a high level of governance, providing comprehensive protection for compliance operations with a robust and efficient governance framework. Tian Lun Gas constantly strengthens risk awareness and enhances prevention and control capabilities. We persistently promote anti-corruption and regulate corporate governance. In this way, we can foster a clean and honest corporate culture.

CORPORATE GOVERNANCE

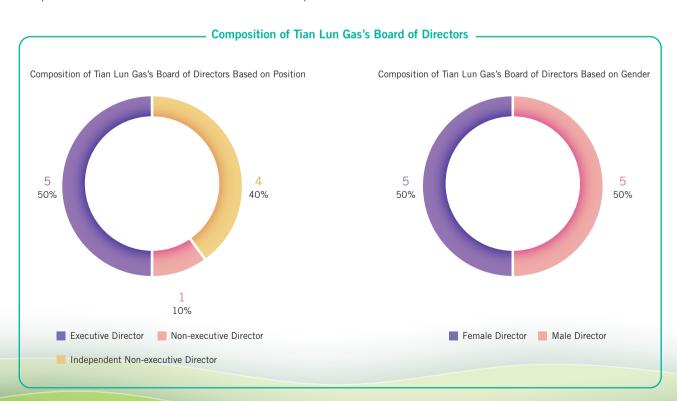
Tian Lun Gas strictly complies with relevant laws and regulations in its operations, such as the *Company Law of the People's Republic of China, Listing Rules of HKEX, Securities and Futures Ordinance, Code on Takeovers, Mergers, and Buybacks, Companies Ordinance, and the Company Memorandum and Articles.* We have formed our own *Memorandum and Articles of Association* and other regimes to enhance corporate governance and information disclosures in compliance with regulations.



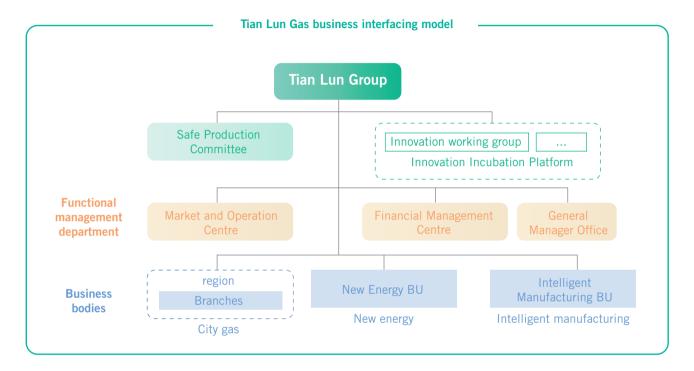
The Board of Directors in the Group is the highest decision-making body, consisting of the Audit Committee, the Nomination Committee, the Remuneration Committee, and the ESG Committee which can deliver efficient governance with clear remits. The ESG Committee is responsible for all the ESG issues and is committed to further strengthening ESG management. Meanwhile, to ensure compliance operations, the Group hires professional third-party secretaries of Hong Kong listed companies, domestic and foreign lawyers, auditors, etc., and consults relevant regulatory agencies in advance on material issues. In 2022, Tian Lun Gas convened two general meetings, nine meetings of the Board of Directors, two meetings of the Audit Committee, one meeting of the Remuneration Committee, and one meeting of the Nomination Committee.

The diversity of the Board of Directors is one of our emphases. Tian Lun Gas selects or appoints any Director candidate in strict accordance with the *Board Diversity Policy* and the *Scope of Duties and Responsibilities of the Board of Directors*, and fully considers the gender, educational background, professional ability, and other aspects of the candidates. As of the end of this reporting period, women have represented 50% of the Board – 5 roles of the Board are filled by women. Members of the Board are required to retire and to be re-elected once every three years, and to have diversified education and career backgrounds. Members of the Board of Directors are able to provide professional advice for the Group's development in that they are experienced in gas company management, energy development, corporate financial management, human resources management, and other aspects.

Besides, Tian Lun Gas ensures the independence of the Board of Directors, setting a chairperson and an administrative executive. The Chairperson is the leader of the Board who is responsible for connecting the Directors and navigating the development of the Group. The administrative executive is in charge of formulating the Group's development strategy, managing the Group's daily operations, and implementing the resolutions of the Board of Directors. The two positions are distinctly differentiated with clear divisions of labour in avoidance of excessive concentration of power, making sure of a balanced distribution of power and authorisation. Moreover, the Group requires the Audit Committee to be composed of independent non-executive directors to ensure its independence.



In 2022, Tian Lun Gas adjusted its management framework to facilitate communication and operation based on a full consideration of the actual management situation and the business operation characteristics. In March 2022, Tian Lun Gas issued the *Guidebook of Business Operation*. The Group will directly interface with the Safe Production Committee and the Innovation Incubation Platform. Downwards, functional management and main business bodies are divided with specific personnel and their responsibilities of each business clarified. Through this improvement, the working process is clearer, the operation is more efficient, and cross-functional communication is also enhanced.



Tian Lun Gas continuously improves the information disclosure system, implements related regulatory requirements of information disclosure, improves information transparency, continues to strengthen communication and exchanges with shareholders and investors, and actively responds to issues of concern to investors. The Group regularly publishes announcements, interim reports, annual reports, and other relevant materials on the official website and other public channels. We also communicate with stakeholders in a timely manner on the Group's business development and future plans through shareholders' meetings, phone calls, emails, and other contact methods. In 2022, Tian Lun Gas made a total of 147 disclosure announcements, issued 2 shareholder meeting circulars, and conducted nearly 100 communications with investors and analysts through teleconferencing and other methods, including well-known institutions such as Citigroup, Nomura Securities, Credit Suisse, and DBS. In 2022, Tian Lun Gas strictly abode by the listing rules and other relevant requirements, and there was no condemnation by the HKEX or SFC or any violations.

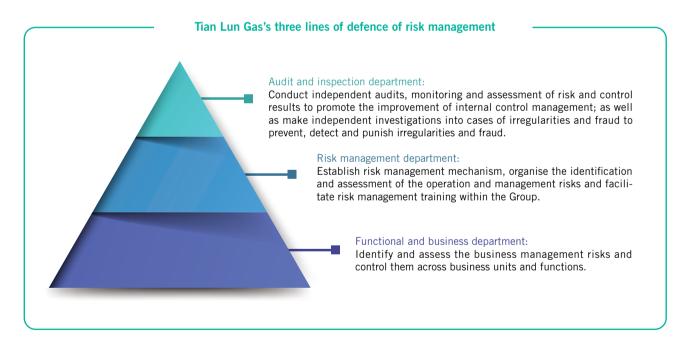


RISK MANAGEMENT

Tian Lun Gas has established a sound risk management and internal control system. We strengthened capacity building in risk identification and control, and complied with the *Anti-Monopoly Law of the People's Republic of China*, the *Anti-unfair Competition Law of the People's Republic of China* and relevant guidelines on business ethics. Specifically, we constantly strengthen risk control, internal audit, anti-monopoly, and anti-unfair competition management.

The Group formulates the *Tian Lun Gas Group Anti-monopoly Compliance Guidelines*, taking into account actual business operations, to avoid anti-monopoly risks, and to improve the anti-monopoly compliance system. Accordingly, we make corresponding prevention, response and handling measures, and cover all business areas with anti-monopoly requirements throughout the entire process of decision-making, execution, and supervision.

As a subsidiary of Tian Lun Group, Tian Lun Gas complies with the *Audit Inspection and Management System of Tian Lun Group*, and has formulated the *Risk Management Manual of Tian Lun Gas*. We promote risk identification and management in a comprehensive manner and facilitate internal control and audit in operations, therefore we can avoid severe compliance risks through multiple aspects. Tian Lun Gas establishes three lines of defence of risk management from the business and functional department, the risk management department, to the audit and inspection department. With clarified responsibilities and labour division, risk management is present in every corner of the Group so as to enhance risk identification and control at every link.



Tian Lun Gas adheres to risk-oriented internal audits. We pay attention to key processes and major risks, and fully implement the operational audit mechanism. In 2022, the audit and inspection department jointly carried out internal audits with experts from various business departments. From the perspective of risk control and business integration, audits were carried out focusing on significant business aspects, such as the Group safety management, engineering management, cost management, procurement management, inventory management, measurement and operation, customer service, operation and market, and financial management. These audits were conducted to "comprehensively inspect and systematically assess" potential risks. Then, we summarised the problems detected in the process, and issued an audit report, requiring the audited team to clarify the person responsible for the rectification, targeted measures, and the time limit accordingly. The team also needed to submit the rectification report in accordance with relevant regulations, and the audit and inspection department would check the results in order to ensure effective implementation of the rectification.

In 2022, Tian Lun Gas completed operational audits of 14 branches covering eight regional companies, making 513 management recommendations, with an overall adoption rate of 94% and a 92% completion rate of rectification by the end of this reporting period.





ANTI-CORRUPTION

Tian Lun Gas attaches great importance to anti-corruption and dedicates to fostering a clean and transparent group. We fully implement the *Cadre Management Rules of Tian Lun Group*, the *Three Red Lines and Five Bans of Tian Lun Group*, and the *Measures on the Management of Gifts Acceptance of Tian Lun Group*. In 2022, we re-revised and issued the *Violations and Penalties Rules of Tian Lun Gas*, adding new anti-corruption assessment tasks and indicators in order to further standardise the discipline system and expose corruption. As a member of the Enterprise Anti-Fraud Alliance, Tian Lun Gas is committed to the values of the Alliance. We value our member identity and pay efforts. Fulfilling responsibilities and obligations, we comprehensively strengthen our resistance to and supervision of bribery, fraud, and money laundering.



Tian Lun Gas attended the anti-fraud exchange



On 12 August 2022, Tian Lun Gas participated in the Central China Corporate Anti-Fraud Exchange hosted by Dahan Group and organised by the Enterprise Institute of Internal Controls. During the event, we shared our experience in the anti-fraud movement, and listened to other member enterprises. This Exchange effectively promoted the improvement of anti-fraud technology, and strengthened the exchange of anti-fraud among regional enterprises, which was conducive to jointly maintaining a good economic order and business environment in the region.

We proactively facilitate anti-corruption within our group and among partners. We constantly norm the content of the *Integrity and Self-discipline Commitment* and the *Integrity Agreement* to clarify violations with warnings. In 2022, the *Integrity and Self-discipline Commitment* was sent to every employee and the *Integrity Agreement* was sent to all of our suppliers and contractors. At the end of the reporting period, all the sent commitments and agreements were signed.

Integrity training is carried out comprehensively in Tian Lun Gas. With innovative forms and widened channels, we connect online education and offline training to provide integrity education to employees and contractors through various ways such as induction training for new employees, pre-appointment integrity talks for management leaders as well as regular integrity presentations. In 2022, Tian Lun Gas and its subsidiary companies provided a total of 9 integrity training sessions for more than 130 employees, with a per capita training time of 2 hours.



The Integrity and Selfdiscipline Commitment of Tian Lun Gas



Tian Lun Gas conducted several integrity seminars and presentations



In 2022, aiming at ensuring healthy development, Tian Lun Gas carried out a number of integrity training sessions and lectures at its head office and all its subsidiaries. During the training, the Group informed participants of recent disciplinary violations and related punishments. Participants also studied the *Letter from the Audit and Inspection Centre to the Group's Employees*. It was to warn and educate all staff, and to highlight and warn of risks in areas prone to disciplinary violations. Through these seminars, management leaders and employees were more aware of the significance and seriousness of integrity and honesty, creating a clean and upright corporate culture.



Tian Lun Gas provided integrity training for the supplier Youzhong Trade

In 2022, Tian Lun Gas conducted a session of trade integrity training for all staff of a major supplier. During the training, recent integrity-related violations were briefed, common risk points in the procurement process were analysed, and Tian Lun Gas's new requirements and suggestions for clean procurement were explained. The entire supplier team signed the *Integrity and Self-discipline Commitment*. Through the supplier integrity training, Tian Lun Gas further strengthened the management of clean procurement, and worked together with partners to build a clean and honest business environment.

We fully understand that public supervision and reporting are essential for realising integrity in the Group. Therefore, Tian Lun Gas has continuously optimised the supervision and report mechanism with more channels, ensuring everyone in the Group can report concerns. We implement requirements from Tian Lun Gas, posting the *Supervision and Reporting Billboard* in internal sites and sending the *Supervision Card for Integrity* to employees. By doing so, we clarify the methods of public supervision and reporting, which fully guarantees the convenience and timeliness of integrity supervision.

We have established a sound mechanism for investigation and punishment in accordance with the *Tian Lun Group Whistleblowing Reward and Punishment Mechanism* and the *Tian Lun Group Complaint and Reporting Regulation*. The reporting telephone number, the email address, and the mail address directly lead to the relevant personnel of the Audit and Inspection Centre who are individually responsible for processing relevant reporting leads with further investigations. Once the reported clues are confirmed, the Group would reward the relevant whistle-blower. Meanwhile, we do not tolerate retaliation so that we firmly protect the privacy and security of the whistle-blowers and will punish those who disclose the reported information.

In 2022, Tian Lun Gas received 27 complaints and reports, and handled 21 cases of non-compliance, including one criminal case in which the suspect was subject to criminal compulsory measures and has been prosecuted. In respect of key aspects and essential positions prone to violations, the Group strengthened its management and inspection to avoid the recurrence of violations. The Group issued relevant penalty notices for the results of the cases that had been concluded internally to sound the alarm to the whole group.

The Supervision Card for Integrity of Tian Lun Group

Partners, suppliers, clients, and employees:

The Audit and Inspection Centre of Tian Lun Group has opened up a channel for you to report concerns. This is to prevent and combat fraud, create a compliant and favourable business environment, and eventually achieve mutual benefits.

Contact us

Helpline: 15649017110

Email address: tianlunshenji300@126.com

Mail address: Audit and Inspection Centre of Tian Lun Group, No.6 Huanghe Dong Rd, Zheng Dong

Xin District, Zhengzhou, Henan, China

Postcode: 450003



Win-win Business

Win-win Business

Material issues addressed in this section	HKEX ESG indicators involved in this section	Capital market issues discussed in this section
Supply chain managementCustomer privacy protectionProduct and technology innovation	B5 Supply chain management B6 Product responsibility	Data security managementSustainable product designLocal procurement
SDGs covered in this section	9 MUSTIN, ANNIMAN MODHINASTRUCTURE	12 CONSUMPTION AND PRODUCTION

Performance highlights:

- Annual R&D investment of over \$6 million;
- 100% of customer complaints resolved and a 90% customer satisfaction rate;
- Eslink, a cloud-based customer service platform, has covered 100% of the Group's business;
- All 135 suppliers for collective procurement have got ISO 9001, ISO 14001 and ISO 45001 certifications.

Tian Lun Gas is committed to providing superior products and customer-centric services to meet customers' various needs and values the protection of customer information and privacy. The Group continuously promotes technological innovation and R&D, strengthens communication and cooperation with its partners, and drives the sustainable development of the industry and society to achieve win-win results for the whole industry.

SERVICE EXCELLENCE

Tian Lun Gas follows the principle of "customer-centred and service-oriented" development and takes customer needs as the starting point of all its business. The Group has been improving customer satisfaction by emphasising on quality management of products and strengthening its information security management.

Provide quality products

Tian Lun Gas abides by the *Product Quality Law of the People's Republic of China* and formulates the *Quality Management Measures for Production Materials of Tian Lun Gas* for the quality control of production materials along the process of sampling, inspection and problem resolution to set up a good image for the brand in the market.

In 2022, Tian Lun Gas established the Smart Manufacturing Business Unit to develop customer-centric product strategies and targets. The Group gradually shifted from a product ODM¹ to an OEM² by developing a variety of energy-efficient products, including gas cookers, water heaters, heating stoves, etc. for better performance and more stable quality. In 2022, many of Tian Lun's smart products have got ISO 9001 certificates.



A subsidiary of Tian Lun Gas received a certification for quality management from China Quality Certification Centre (CQC)



¹ ODM, Original Design Manufacturer

² OEM, Original Entrusted Manufacture

Win-win Business

Improve service level

Tian Lun Gas has established a comprehensive customer service system and devised a series of internal systems, including the *Customer Service Information Management System*, the *Sales Management System*, the *Customer Service Etiquette Standard Manual* and the *Customer Complaint Management System* to regulate the standards and processes for customer acquisition, product maintenance and replacement, and customer complaints resolution and to ensure service quality.

The Group adheres to the working style of "quick response with speedy and strict enforcement", provides diversified channels for customer communication, and responds to the needs of customers as fast as possible. It also listens attentively to the voice of the customers by collecting customers' feedback promptly and setting up 24-hour customer service hotlines. Results of the 2022 customer satisfaction survey, which studies around 1.4 million customers regarding their satisfaction with the service of work tickets and safety examination, show the satisfaction rate at 90%.

The Group has set up comprehensive channels and mechanisms for addressing customer complaints (e.g., via telephone, the Internet and counters), and designed a closed-loop complaint settlement process consisting of tracking, documentation, escalation and follow-ups to make sure that the customer is always our priority. In 2022, Tian Lun Gas received a total of 19 complaints, all of which were addressed on the same day of receipt with a resolution rate of 100%.

Update Receive Escalate Document Follow up Record customers complaints complaints and on complaint with from to relevant classify customer information complaint customers teams resolutions complaints resolution

Tian Lun Gas's complaint handling process

Tian Lun Gas is committed to offering convenient and efficient services to customers with the help of digital and smart technologies and innovations in customer service methods and processes. The Group has been upgrading its cloud-based customer service platform Eslink and basic customer service systems so that a number of functions including real-time inspection monitoring, work ticket dispatchment and on-site billing can be achieved. In 2022, Eslink has already covered all of the Group's business.

The Group also started self-service payment for residents. Subsidiaries are required to open more than two top-up outlets in their locations so that residents can top up by themselves in various payment methods. In 2022, the Group optimised the self-service payment further by launching the "general meter and IOT meter" payment function in its enterprise WeChat account and installing self-service payment machines in the territory of each subsidiary. As of the publication of this report, all of the Group's business can be paid online or through self-service. Besides, the Group also established a partnership with China Merchants Bank to develop NFC bill payment and continue to optimise its bill payment service.

Tian Lun Gas emphasises the cultivation of the quality of its customer service talent and conducts regular training to enhance the service level and awareness of its team. In 2022, Tian Lun Gas held 3 trainings on the operation of the Eslink platform for its subsidiaries' customer service teams to make sure that the teams fully understand the functions and usage of the platform.

Strengthen privacy protection

Tian Lun Gas is fully committed to safeguarding the privacy and sensitive data of customers, strictly complies with the *Cybersecurity Law of the People's Republic of China* and the *Personal Information Protection Law of the People's Republic of China*, and has formulated internal measures, including the *Violations and Penalties Rules of Tian Lun Gas* and the *Tian Lun Gas File Management Measures V2.0*, to improve its information security management. The Group attaches importance to the information security management of its internal online platforms as exemplified by a collection platform with a National Information System Security Grade 3 certification. Learning from the ISO 27001 international information security standards and CSA security guidelines, it has also built a cloud security system featuring "technology-empowered management" and focusing on "prevention and defence". In 2022, Tian Lun Gas launched an internal audit of information security and privacy protection and plans to complete the audit covering the whole group within 3 years.

The Group requires all of its employees to sign a *Confidentiality Agreement* and assigns a dedicated person to manage customer information. Unauthorised personnel are not allowed to inquire, copy or extract customer info, eliminating the risk of information leakage. In addition, it stipulates that any violation of confidentiality shall be punished by criticism, demerit, and in serious cases, demotion or removal from its post. If the violation has a significant or bad impact on the Group, the Group will terminate its contract with the employee. In 2022, no incidents related to information security and customer privacy breach was recorded.

TECHNOLOGY INNOVATION

Tian Lun Gas encourages tech-driven business transformation, sticks to technological self-reliance, utilises innovative technologies, and has been cooperating with external partners to develop an integrated industrial ecosystem.

The Group actively expands its presence in the new energy industry: it designs smart sensors, control equipment and other specialised and sophisticated products and develops related smart products in areas such as photovoltaic power generation. To better set its future product settings, the Group conducts a survey on each product, prepares feasibility reports, builds business cases, and has the relevant documents reviewed by the Board of Directors. In 2022, Tian Lun Gas invested a total of more than RMB6 million in R&D.

On top of this, Tian Lun Gas carefully studied how its plans fit with the characteristics of the industry and market development and drew on the best practices of its peers, striving to strengthen its edges through information sharing and progress alongside the industry.





Tian Lun Gas and CEC Henan established a strategic partnership

Tian Lun Gas signed a strategic cooperation agreement with CEC Henan Province Electric Power Survey and Design Institute Co. on January 21, 2022. Following the principle of "complementary advantages, common development and win-win cooperation", the two parties will give full play to their respective advantages and develop all-round technological and commercial cooperation to establish strategic synergies and seek mutually beneficial and win-win results.

New energy

Tian Lun Gas will work with CEC Henan to develop distributed PV, ground-based centralised PV, distributed wind power, ground-based centralised wind power, energy storage and other projects in suitable regions, innovate and demonstrate the integrated application of various energy sources, and create a new energy system focused on clean energy.

Low carbon industries

The two parties jointly carry out the development and construction of smart energy and industrial energy-saving projects in energy-intensive industries, in particular, the cement industry, iron and steel industry, chemical raw materials and manufacturing industry, non-metallic mineral industry, ferrous metal smelting and rolling industry, non-ferrous metal smelting and rolling industry, and drive the recycling renovation of the industrial park, promote tiered energy usage and the utilisation of industrial waste pressure, heat, gas and liquids.

Charging and battery swap stations

Relying on CEC Henan's advantages in charging and battery swap stations, Tian Lun Gas upgrades its gas fuelling stations into smart charging stations integrating PV, energy storage, charging and parking functions with the help of photovoltaic technology, contributing to green urban transportation.

Tian Lun Gas constantly strengthens its management and protection of intellectual property, strictly complies with the *Patent Law of the People's Republic of China*, the *Rules for the Implementation of the Patent Law of the People's Republic of China* and other laws and regulations, actively conducts training on intellectual property rights (IPR) and drives the effort on IPR compliance. By the end of the year, Tian Lun Gas has a total of 9 utility models.



Tian Lun Gas conducted IPR training

In May 2022, Tian Lun Gas conducted IPR training for all employees, explaining relevant contents of intellectual property and copyright in the *General Principles of the Civil Law of the People's Republic of China* and the *Copyright Law of the People's Republic of China*. After the training, employees across departments achieved a 100% pass rate in a Q&A test set by the Group, indicating a strengthened knowledge and understanding of IPR among employees.

RESPONSIBLE PROCUREMENT

A high-quality, robust and sustainable supply chain is a key guarantee for Tian Lun Gas' business operations and development. The Group strictly abides by the *Civil Code of the People's Republic of China*, the *Bidding Law of the People's Republic of China* and other laws and regulations. We have formulated the *Procurement Execution-Workflow of Tian Lun Gas* and the *Procurement Management Measures of Tian Lun Gas* and revised the *Management Measures for Production Materials of Tian Lun Gas*, and the *Supplier Evaluation Form the Measures for Management of Acceptance of Purchased of Tian Lun Gas* in 2022 to further standardise the management of procurement, supplier materials and supplier auditing. As of December 31, 2022, Tian Lun Gas had a total of 246 suppliers, all from mainland China.

In 2022, Tian Lun Gas focused on reviewing the production and operation-related qualifications of suppliers and strictly controlled the quality of procured products. The Group managed the whole process of the supply chain and sourcing based on the *General Procedures of Supplier Introduction of Tian Lun Gas* and the *Procurement Management Measures of Tian Lun Gas*, which provide a scientific and rigorous mechanism of the introduction/withdrawal, management, audit and evaluation of suppliers to ensure the quality of supply and mitigate risks.



Win-win Business

Tian Lun Gas's supplier management process:

Check if suppliers have any violation of laws or irregularities via the National Enterprise Credit Information Publicity System and TianYanCha or similar platforms in the introduction phase;

Evaluate and audit selected suppliers regularly through video inspection of plants and third-party product testing; in 2022, we conducted over 80 third-party inspections and deducted scores for suppliers that failed the inspection and couldn't prove the same batch of products qualified from higher-level testing institutions;

Classify suppliers into 4 groups according to the assessment results, namely excellent, qualified, rectification required and unqualified;

Unqualified suppliers should be removed from the list; rectification required suppliers should improve their quality based on the requirements of the notice before they are recognised as qualified suppliers, otherwise they should be delisted as well.

To avoid supply disruptions and other contingencies, Tian Lun Gas strengthens its monitoring of materials and raw materials in its daily inventory management, pays attention to market dynamics and price fluctuations, formulates the *Production Materials Allocation Mechanism*, and inspects the environment of warehouses. Meanwhile, Tian Lun Gas has devised a series of measures for local procurement, of which non-collective procurement of production materials, administrative materials and services accounts for 5%. Tier-1 materials are bought from suppliers as close to the order destination as possible, with around 20% of overall procurement made locally. This contributes to maintaining stable supplier relations and promoting regional economic growth.

In 2022, Tian Lun Gas clarified its requirement for suppliers on sustainable development. Specifically, suppliers need to get the ISO 9001, ISO 14001 and ISO 45001 certifications before they can be listed as candidates, and the production standards of the products supplied shall not be lower than the latest corresponding national standards or industry standards. In 2022, 191 of Tian Lun Gas's existing suppliers got the three above-mentioned certificates, covering all of our 135 suppliers for collective procurement.

At the same time, the Group takes into account the environmental impact of suppliers' products and devises specific requirements for suppliers' key products. For example, the NO, emissions of the burners of the boiler need to be less than 30mg/m³ (complying with the NO, threshold set in the standards). In 2022, Tian Lun Gas launched its self-closing valve foundry business, requiring suppliers to use forging technology for valve body manufacturing. Compared to the traditional die-casting process, forged valve bodies have higher strength, stabler quality and better safety, which helps improve product quality while avoiding energy waste caused by quality issues of self-closing valves.

Tian Lun Gas continues to enable recruitment by technology. In June 2022, the supplier recruiting platform of the Group officially came online. By the end of 2022, 28 open/invited biddings were held through the platform, selecting over 40 suppliers, comparing 70 pricing offers, and circulating 7,300 purchase orders. This further facilitates the cooperation between the Group and suppliers.



In September 2022, Tian Lun Gas invited equipment suppliers for an onsite technical exchange at its Shangjie Company. Staff from Tian Lun Gas participated in the exchange, sharing experience in-depth and learning from the demonstration of the equipment. The exchange effectively promoted the interactions between the two sides and helped maintain close cooperative relationships between the Group and

the suppliers.





Production Safety

Material issues addressed in this section	HKEX ESG indicators involved in this section	Capital market issues discussed in this section	
 Safe and stable gas supply Customer privacy protection Customer services Occupational health and safety 	B2 Health and safety B6 Product liability	Occupational health and safetySafety management system and occupational injury	
SDGs covered in this section	3 GOOD HEATH 9 MUSTRY, AND WELL-SERIG	11 SEXMANDER CITIES 12 RESPONSIBLE CONCENTRIC CONCENTRI	

Performance highlights:

- Invested a total of RMB51.34 million in safety investment and appointed 90 production safety management personnel;
- Identified a total of 67,974 accident hazards, achieved a rectification rate of 100% and registered 0 safety accidents in 2022;
- Carried out 1,398 safety emergency drills and 50,307 hours of safety training with a total number of 41,045 people for 14.99 hours per capita;
- Achieved 0 work-related fatalities for 3 years in a row;
- Conducted household safety inspections in 1.49 million households, achieving 96% of the goal of 1.55 million households.

Adhering to the management philosophy of "safety first, focusing on prevention, involvement of all staff, and continuous improvement", Tian Lun Gas constantly improves safety management, firmly secures safety operations and provides customers with safe and high-quality gas services.

STABLE GAS SOURCE

The Group constantly strengthens the construction of gas source guarantee systems and formulated various policies, such as the *Gas Source Management Policy*, the *Natural Gas Resource Coordination and Management Policy*, and the *Natural Gas Statistics Management Rules*. We have also released specific management policies, covering gas source planning, gas source acquisition, gas source construction, and gas source coordination, to guarantee gas source supply in an all-around manner. The Group optimises the gas source management framework and sets the Market and Operation Centre to be responsible for resource allocation including four major businesses, i.e., pipeline gas trade, LNG trade, diversified trade and LNG collective procurement. We have also established effective communication mechanisms with subsidiaries to coordinate related issues of gas source guarantee. In 2022, Tian Lun Gas achieved part of the goals in gas source guarantee set in its three-year strategic plan from 2022 to 2024, such as goals of gas storage control, account opening and facility construction. We issued the *Notice of Conducting Market Surveys in 2023* and investigated the actual demand for natural gas from downstream users, laying a solid foundation for gas source supply and demand in the next year.

The Group strengthens the analysis of natural gas demand peak, and accurately predicts the energy demand in the market. We also make every effort to improve the gas supply planning and scheduling management. The Group monitors the gas storage volume on a daily basis to meet the gas demand for various customers. By December 31, 2022, Tian Lun Gas has provided gas services for 69 cities in 16 provinces throughout the country and owned 51 gas stations, 1 LNG plants and 6 long-haul pipelines.



Production Safety

To better coordinate and optimise resources, the Group issued the *Work Plan of Collective Procurement of Liquefied Natural Gas (LNG) of Tian Lun Gas*, established LNG Collective Procurement Centre and LNG Collective Procurement Platform to search for high-quality LNG resources and promote effective and orderly collective procurement. In 2022, the LNG Collective Procurement Platform recorded a total sales of 100 million m³ natural gas, with 55% of internal supply and 45% of external trade.

In 2022, faced with uncertainties such as national energy structure adjustment, the influence of upstream resource allocation and rising market demand, Tian Lun Gas deepened regional coordination, actively coordinated and acquired resources in various ways and ensured gas source supply and guarantee in a multi-pronged approach.

Tian Lun Gas's performance highlights in guaranteeing gas supply in 2022

Gas supply structure inspection

 A total of 9 subsidiaries finished inspection for the volume of civil gas use.

Additional resources coordination

- Acquired 50 million m³ contractual additional gas from the upstream companies.
- Coordinated over 60 million m³ unconventional pipeline gas.
- 9 more subsidiaries signed contracts with upstream companies for direct gas supply.

Pipeline and pipeline network

- 1 more subsidiary started pipeline gas services.
- 5 more subsidiaries realised the interconnection of gas pipeline networks.
- 3 more subsidiaries were approved to build the primary delivery points in the national pipeline network.

Gas supply facilities

 7 more subsidiaries installed CNG pressure reduction skids or LNG vaporizers.

Gas storage and peakshaving

 4 more subsidiaries signed lease contracts with Henan Natural Gas. Storage and Transport Company for storage space in gas reservoirs or pipelines of liquefaction plants. Upholding the working principle of "collaboration and quick response", Tian Lun Gas strengthens the normalised organisation and management ability of gas supply emergencies, makes targeted emergency response plans in advance, ensures the orderly execution of emergency plans and reduces the negative influence on all kinds of users.

The Group required the subsidiaries to develop the *Emergency Plan for Cutting Off or Limiting Gas Supply* and the *Plan for Guaranteed Gas Supply in Peak Season* given their situation and local conditions, keep track of the weather changes and the fluctuations of gas volume in each operation area and report to the local competent authority.

In 2022, the Group issued the *Notice of Implementing Gas Source Guarantee in the Winter of 2022-2023* to identify gas supply shortages and allocate resources in advance to ensure gas supply. In addition, the Group has developed a three-level response mechanism with a "headquarters – regions – subsidiaries" management framework to ensure a "steady, efficient, controlled, and coordinated" gas source supply.

The early warning and response mechanism for gas supply emergencies

Start	 Three early warning levels are set according to the total natural gas reserve. If there is a shortage in the total natural gas reserve that reaches the early warning threshold, the Customer Service Department will apply to the Company. The emergency response commanding group of the Company will confirm the application and report to the competent authority of the local government. Relevant emergency response plans will be implemented upon approval of the competent authority.
Implementation	 The Customer Service Department will launch the corresponding emergency response plan. In line with the level of the emergency response plan, a 24-hour prior written notice will be sent to relevant users and pressure-regulating outlet valves or general valves will be switched off.
Termination	 If the daily gas supply meets users' demand, the Safe Operations Department will apply to the Company to terminate the emergency declaration. The Company will apply to the competent authority for the recovery of normal gas supply. Upon approval, the Customer Service Department will send a written notice to inform the users.



Production Safety

SAFE GAS SUPPLY

Tian Lun Gas shoulders its responsibility of safety development and constantly improves its safety management system. Through a series of measures, such as risk prevention and control, safety inspection and hazard identification, the Group strengthens work safety supervision, fosters strong safety awareness and spares no effort to safeguard the life safety and occupational health of its employees.

Tian Lun Gas strictly abides by the Law of the People's Republic of China on Work Safety, the Measures for the Administration of Emergency Response Plans for Work Safety Accidents, the Regulations on the Administration of Urban Gas and other relevant laws and regulations. We have formulated a series of safety management policies, such as the Hidden Safety Hazards Management Policy, the Emergency Management Policy and the Production Safety Supervision and Management Policy, to shoulder the responsibilities of production safety. In 2022, the Group issued the Guide for Production Safety Management Staff of Tian Lun Gas and the Operation and Management of Gas Plants and Pipeline Networks of Tian Lun Gas, and revised the Management System of Production Safety Accidents of Tian Lun Gas to regulate the management process of production safety and constantly upgrade the production safety system.

The Group constantly promotes the management system of production safety and establishes and improves the trinity management structure comprising the commanding team, the supervising team, and the supporting team. The Group strengthens the safety management and supervision responsibility of the senior leaders of the subsidiaries, signs the Liability Statement of Annual Safety Production Goals with each subsidiary, sets safety goals and organises performance evaluation of the goals. Tian Lun Gas sets the Production Safety Committee, consisting of divisions such as the Safety Management Office which coordinates and supervises the work related to production safety, to regulate the production safety management of the Group. We also require the relevant departments to ensure production safety within their responsibility under the principle of "being responsible for what you are in charge of". In 2022, the Group invested RMB51.34 million in natural gas safety, including investments in the maintenance and renovation of gas facilities, special equipment inspection, allocation of emergency rescue and identification equipment and informatisation of operation safety.

In addition, the Group issued the incentive policy of "certified safety engineer" to improve the safety management skills of employees, including subsidies and priority in promotion. In 2022, Tian Lun Gas appointed a total of 90 production safety management personnel and 40% of the staff in the Production Safety Committee were from the rank and file.

Safety hazard control

Tian Lun Gas established an effective safety hazard control and prevention system and set up a hazard identification team. We regularly update the list of safety hazards. Through safety hazard identification, assessment and control, we implement the measures to address safety hazards and effectively prevent and control safety hazards of the Group. Meanwhile, we attach great importance to the safety management of equipment and formulate management regulations such as the Equipment Management Measures, the Collection of Provisions on Management of LNG Gas Fuelling Stations and the Management Policy on Inspection of Pipelines and Ancillary Facilities of Tian Lun Gas, to standardise the management of the whole life cycle, including equipment design, purchase, use, inspection, maintenance and repair, and build a mature equipment management system. The Group actively explores the application and promotion of IoT ultrasonic gas meters to monitor gas leaks with precise measurements. In order to ensure operation safety, the Group organised the subsidiaries to purchase safety equipment, including portable combustible gas leak detectors, four-in-one multi-gas detectors, laser remote methane detectors and pipeline anti-corrosion layer detectors.

In 2022, based on its actual situation and guidelines including the *Plan for Safety Inspection and Regulation in Cities and Towns* and the *Implementation Plan for Urban Gas Pipelines Renovation (2022-2025)*, the Group conducted inspections to identify accident hazards in the safety management system, engineering safety, plant and station safety, pipeline network safety and user safety, improving the overall safety level. The Group regularly organised experts to carry out regular safety inspections, hazard elimination and special inspections. Each subsidiary carried out safety inspections of plants, stations, users and pipeline networks on a monthly basis and made clear the responsible persons, deadlines and plans of hazard elimination, reducing the odds of high-risk accidents. For example, Tian Lun Gas conducted regular inspections and leak monitoring and installed combustible gas leak detectors and pressure leak detectors to timely detect the damage and leaks caused by third parties in pipeline networks. In 2022, Tian Lun Gas found 69,974 potential accidents and removed all the hazards, achieving 100% elimination of safety hazards. No safety accidents happened in 2022.



Tian Lun Gas Huzhu Company repaired the damage to the anti-corrosion layer of the pipelines



In July 2022, Tian Lun Gas Huzhu Company identified damage on the anti-corrosion layer of the pipelines through inspections of the anti-corrosion layer of the buried steel pipelines and immediately carried out repair work. To prevent the recurrence of such accidents, the Group increased the frequency of inspections on buried steel pipelines and installed cathodic protectors. No damage or leaks were found in later inspections.

Production Safety

The content of safety inspections

Conducts of

- Check whether there is any breach of production safety policies and regulations.
- Check whether dangerous operations are approved.

Status of materials

- Check whether production materials (including gas sources) are stored according to relevant standards and requirements.
- Check whether production equipment and safety facilities are operated and used according to safety requirements.
- Check whether personal protective equipment is correctly worn and used.

Equipment

- Inspect the gas pipeline networks, valve pits, pressure regulation facilities, and gas facilities in communities, and complete the *Pipeline Network Inspection Records*.
- Check whether there is any construction work around gas pipelines or whether there is any item placed on the pipelines, complete the *Liaison for Cross Construction* if cross construction poses risks to gas safety and conduct on-site supervision if necessary.
- Promptly report a gas leak, if any, for timely repair.
- Track and check the repaired area, ensure all the hazards are eliminated and report any other potential safety hazards, if any, in time.

Working environment

- Check whether there is any hazard (including major hazards) in the workplaces and whether corresponding supervision measures are in place.
- Check whether there are any occupational hazards and whether corresponding protection and emergency response measures are in place.
- Check whether work safety hazards are fully identified and whether the measures taken can effectively eliminate or control them.

Management

- Check whether the safety production responsibility system is implemented.
- Check whether safety goals, rules and regulations and work plans are executed properly.
- Check whether production safety inspections are institutionalised and standardised.
- Check whether every accident hazard has been eliminated in time.
- Check whether safety education and emergency rescue plans are complete.

Safety emergency management

Tian Lun Gas attaches great importance to safety emergency management. It has formulated the *Emergency Management Policy of Tian Lun Gas* and the *Emergency Response Management Process*, promoted the standardised emergency management with a strict process and built a more effective emergency management system. The Group has also developed emergency response plans for different types of hazards, including those of plants and stations, pipeline networks, users, natural disasters, public health and the society. According to the level of emergency response plans, the Group has established emergency response teams, allocated emergency response resources and organised emergency response drills to improve its competence in emergency response. All the subsidiaries are required to organise emergency response drills, including comprehensive drills, drills in plants and stations, special drills and surprise drills, and formulate plans of action targeting the problems identified in the drills.

In addition, the Group adheres to the principle of "four don'ts", and stipulates that responsible persons shall analyse the accident and prepare an analysis report immediately to prevent the recurrence of such accidents. In 2022, Tian Lun Gas carried out 1,398 safety emergency response drills.



Tian Lun Gas Shangjie Company carried out an emergency response drill



In June 2022, Tian Lun Gas Shangjie Company carried out an emergency repair drill in confined spaces. The drill stimulated a leak in a valve pit. Following the emergency response plan, the staff took orderly emergency response measures, such as reporting the leak, controlling the gas source, forming cordons, implementing repair and inspection and gas supply resumption. The drill effectively improved the staff's emergency response ability in the real situation.



Production Safety

The principle of "four don'ts" in accident management

1	Don't close the case until the cause of the accident is identified.
2	Don't close the case until the responsible persons are seriously dealt with.
3	Don't close the case until the responsible persons and the employees are taught a profound lesson.
4	Don't close the case until the prevention measures for such accidents are implemented.

Raise the safety awareness

Tian Lun Gas promoted safety education. The Group carried out safety training for all employees, including safety management training, emergency response training and typical case analysis, to raise the safety awareness of all employees. In 2022, the Group carried out training on regulations, such as the *Construction and Main Work of Production Safety Management System* and the *Typical Cases Analysis and Publicity and Implementation of Production Safety Laws and Regulations*, for general managers, deputy general managers, safety management staff and department heads of the subsidiaries. With more than 500 participants, the training strengthened the professional ability of safety management staff. In addition, the Group carried out operation and maintenance training on gas fuelling stations, gas pipelines and urban gas pipelines for operators, covering more than 2,000 people. In 2022, the Group recorded a total training time of 50,307 hours with 41,045 participants and 14.99 per capita training hours.



Tian Lun Gas's safety training system

Participants	Main content
Persons-in-charge of the subsidiaries	 Basic national, local and industry-related laws and regulations. Production safety knowledge about production and operation activities of the participant's company.
Production safety management staff	 Basic national, local and industry-related laws and regulations and management standards. Advanced production safety management experience and typical cases from foreign and domestic markets.
General operators	 Production safety policies and regulations concerning the participant's company. Safe operation behaviours and operation procedures related to production processes. Confirm whether the operators are qualified for their positions during the training.
Special operators	 Safety production policies and regulations concerning the participant's company. Safe operation behaviours and operation procedures related to production processes. New knowledge and skills related to their positions.
Other employees	 Safety culture concepts and relevant safety regulations. Emergency response knowledge and skills related to their positions. Safety awareness and safe behaviours.

Safety training coverage by types of employees in 2022

Indicator	Employee types	Coverage (%)
Safety training coverage	Senior-level employees	97.78%
	Mid-level employees	97.29%
	Other employees	95.59%



Production Safety

Guarantee safe gas use

Tian Lun Gas safeguards the safe gas use of all users in an all-round way and implements safety inspections. In 2022, the Group revised the *Safety Inspection Management Regulations* to further improve its safety management system. The Group established the safety management system throughout the life cycle of gas facilities which ensured users' safety by conducting household safety inspections, safety publicity, abnormal gas consumption checks, hazard elimination and promotion of the use of intrinsically safe devices, improving household safety management. In 2022, the Group installed safety devices such as alarms, self-closing valves and bellows in over 600,000 households.

The Group established the customer service team for safety inspection and included the increase in household safety inspection rate as one of the safety goals in the performance evaluation. We carried out regular household safety inspections, including checks on gas use environment, household pipelines, connection hoses, gas meters and leak alarm systems, for both personal users and business users. For the common issues and households with safety hazards, the Group will send a notice of safety hazard elimination and set a time limit according to how serious the identified hazard is. If the users fail to do so within the time limit, their gas supply will be cut off and the users will be disciplined to ensure the safe use of gas. In 2022, the Group carried out safety inspections in 1.49 million households, achieving 96% of the goal of 1.55 million households.

The Group actively publicises knowledge of safe gas use to users and signs the *Letter of Responsibility for Safe Gas Use* with users, specifies the responsibilities, rights and duties of the suppliers and users, strengthens the publicity of gas safety, distributes the *Natural Gas User Guide* to all users and informs users of the emergency telephone number to strengthen the safety awareness of users. In addition, in 2022, in order to further strengthen the publicity of the basic knowledge about safe gas use and help users to form a good habit of gas use, the subsidiaries brought the publicity activities into the communities, schools, households and enterprises, creating a nice atmosphere of shared awareness of safe gas use.



Tian Lun Gas publicised safe gas use in areas with coal-to-gas projects in Henan province



In 2022, Tian Lun Gas Yutian New Energy Company carried out over 200 publicity activities of safe gas use in areas with coal-to-gas projects in Henan province. Organisers publicised safe gas use to rural residents in ways of display boards and manuals to establish their awareness of safe gas use. In addition, the company carried out household publicity activities targeting the vulnerable, especially left-behind seniors and single mothers, to ensure that every user was aware of safe gas use and avoid relevant safety hazards.

OCCUPATIONAL HEALTH AND SAFETY

In accordance with the *Law of the People's Republic of China on Prevention and Control of Occupational Diseases*, Tian Lun Gas has formulated the *Management Policy for Occupational Health and Environmental Protection* and other regulations to regulate the relevant management process and methods and safeguard the occupational health and safety of the employees in an all-around way. In 2022, the Group realised its goal of zero occupational diseases.

Tian Lun Gas prioritises the need of creating a safe and healthy workplace for all employees in its safety management. The Group regularly organises annual physical examinations for employees and establishes occupational health files for employees to prevent occupational diseases. In addition, the Group regularly evaluates the current status of occupational hazards, identifies the hazard factors, conducts classified management of relevant occupational hazard factors and provides targeted protective equipment for employees. In 2022, the Group recorded zero work-related fatalities, 782 working days lost due to work-related injuries and a 100% of physical examination rate among employees. There was zero work-related fatality in the past three years.

Measures for occupational health

- Take noise reduction measures at noisy workplaces to reduce physical harm to employees.
- Take cooling or heat preservation measures at high or low-temperature workplaces to protect employees from getting heatstroke, scald injuries or cold injuries.
- Organise inspections of hazard identification in plants and stations. If there is noxious gas in the workplace, provide corresponding canister respirators, masks, respirators and other protective equipment and reduce the working hours to protect employees from being poisoned.

Tian Lun Gas attaches equal importance to the health and safety of its contractors as its own safety management. Through establishing management systems such as the *Project Management Guidebook*, the Group unified the engineering and technical standard systems and ensured the safety management of the contractors. The Group implemented a monthly evaluation and assessment mechanism for contractors. Under the one-vote veto mechanism, any construction company with safety accidents at the major level or above will be disqualified on a long-term basis.

Safety measures for

- Add safety agreements in the contracts of construction projects to clarify the safety responsibilities of both Tian Lun Gas and the contractor.
- Before construction, Tian Lun Gas should organise the joint checking of drawings and sign the safety technical disclosure document with the contractor.
- Carry out daily on-site inspections and solve the identified problems immediately.
- Hold monthly meetings for construction safety discussion and training to discuss matters such
 as safety, quality and progress and check the safety training of the daily shifts of the contractor.





Material issues addressed in this section	HKEX ESG indicators involved in this section	Capital market issues discussed in this section		
 Environmental management Tackle climate change Product and technology innovation Use of resources Emissions 	A1 Emissions A2 Use of resources A3 Environment and natural resources A4 Climate change	 Environmental management Greenhouse gas management Identifying and responding to climate risks and opportunities Use of resources 		
SDGs covered in this section	7 AFFORDABLE AND 9 NOUSTRY ANNIVITED AND INFRACTICUTE	12 RISPONSEUE CONSUMPRION AND PRODUCTION CO		

Performance highlights

- No environmental management penalties;
- A total of 32 gasoline vehicles were replaced by natural gas ones;
- Climate change-related risks identified and countermeasures developed based on TCFD guidelines;
- Total natural gas users by rural gasification reached nearly 2 million;
- 100,000 potential users with 4,856 households signed, equivalent to approximately 125MW of installed photovoltaic capacity.

Tian Lun Gas proactively fulfils its responsibilities for environmental protection and adheres to sustainable environmental management. Tian Lun Gas actively promotes ecological conservation within the Group by flexibly responding to climate change risks, continuously improving its efficiency of energy conservation and emission reduction, carrying out various projects like gas-electric coordination, and implementing ideas of environmental protection in the daily life of employees.

GREEN DEVELOPMENT

Adhering to the philosophy of "green development", Tian Lun Gas strives to establish a sustainable operation and management system. At the same time, Tian Lun Gas fosters environmental awareness within the Group, requiring all employees to conserve resources and implement green office practices, so as to fulfil our commitment to green development through practical actions.

Environmental management

Strictly abiding by the *Environmental Protection Law of the People's Republic of China*, the *Law of the People's Republic of China on Prevention and Control of Air Pollution*, the *Law of the People's Republic of China on the Prevention and Control of Water Pollution*, the *Law of the People's Republic of China on Prevention and Control of Environmental Pollution by Solid Waste* and the *Law of the People's Republic of China on Prevention and Control of Pollution from Environmental Noise*, Tian Lun Gas has internally issued the *Management Measures for Environmental Health*. Together with its subsidiary companies, the Group has strived to obtain the ISO 14001 certification. By the end of the year, one more subsidiary of the Group was qualified for environmental management. In 2022, there were no environmental administrative penalties.





A subsidiary of Tian Lun Gas received a certification for environmental management from China Quality Certification Centre (CQC)

Use of resources

Efficient management and use of energy have always been our priority. Strictly adhering to the Law on Energy Conservation of the People's Republic of China, the Renewable Energy Law of the People's Republic of China, the Water Law of the People's Republic of China and the Electric Power Law of the People's Republic of China, the Group has developed and implemented the Management Measures for Office Energy Conservation of Tian Lun Gas to standardise the management of resource use and to define energy-saving measures in controlling air conditioning temperature and lighting systems. With all these measured in place, the targets of energy conservation and emission reduction can be effectively met.

Besides, all the department heads are required to be the first person responsible for the management of energy conservation and emission reduction within their department, and are obligated to formulate plans and goals for sustainable energy usage, cost reduction and efficiency improvement. In 2022, Tian Lun Gas strives to meet its energy consumption targets through scientific management of the use of electricity, gasoline, water and other resources, and particularly emphasises the importance of conservation and efficient use of water.

To ensure the proper treatment of all categories of waste and improve our waste management, Tian Lun Gas has formulated a series of procedures and goals for the reduction and treatment of wastewater, solid waste, waste gas and noise generated during the operations.

T 1 0							
Tian Lun G	ias's	targets	ot red	ucing	environm	ental dischar	ge

Indicator	Target
Wastewater	Achieve real-time monitoring of wastewater indicators and its treatment to ensure that 100% of the wastewater is discharged in compliance;
Non-hazardous wastes	 Encourage contractors to build awareness for environmental protection and achieve a 100% of the earthwork waste backfilling rate; Promote the policy of "green office" and achieve an office waste sorting and disposal rate of 100%;
Hazardous wastes	Ensure 100% compliant disposal of hazardous wastes through strict implementation of transportation procedures.

• Wastewater management

Tian Lun Gas strictly complies with the relevant regulations on the management and monitors of wastewater produced in operation, production and daily life of employees: wastewater produced in non-industrial processes is discharged into the municipal sewage pipes, which will then be managed by the municipal sewage treatment plant; wastewater produced in operation and production is first transferred to our sewage treatment plant and is discharged only after flocculation, precipitation and other standardised processes; clean water is discharged to nearby sewers to avoid damage to the farmland.

Solid waste management

Adhering to the "reduction, recycling and harmless disposal" principle, Tian Lun Gas has formulated its own regulations including the *Management Measures for Environmental Health* and the *Regulations on Paper Document Management of Tian Lun Gas* to better treat solid waste and standardise the management of kitchen waste, office waste and construction waste produced in operation, production and employees' daily life. Recyclable garbage is treated by the resource recycling department, while non-recyclable waste is cleared and disposed on a daily basis. The Group advocates paperless office and follows the principle of "only printing or copying when necessary" to minimise use of paper. Construction waste is first classified and recorded in terms of its quantity, recyclability and destination waste soil produced in third-party construction is backfilled at the construction scene. In terms of construction waste, Tian Lun Gas has established a waste sorting management system to keep track of waste discharge volumes, recycling volumes and recycled waste destinations. The earthwork waste, generated by the third-party construction will be kept under supervision to ensure on-site backfilling and to protect the local ecological environment.

Tian Lun Gas continuously improves its system of management of hazardous waste, e.g., rigorously keeping a record of waste transfer. For instance, waste produced by the gas station, such as lubricating oil, remaining impurities and oil-water mixture, is strictly recorded and transferred to qualified units for treatment instead of being transported as construction waste to avoid pollution of soil and groundwater.



• Waste gas management

The emission of nitrogen oxides, sulfur dioxide and particles from vehicles is the main source of waste gas. Thus, we strive to strictly control the vehicle use by multiple measures. For instance, Tian Lun Gas issued the *Plan of New Energy Vehicle Replacement* to scale up the use of NEVs. Besides, Tian Lun Gas promoted the use of MindLinker to organise virtual meetings and curb trips caused by in-person meetings. In 2022, 32 gasoline vehicles of the Group have been adapted to consume the natural gas.

Tian Lun Gas strictly manages construction materials in every construction project. It adopts multiple measures to deal with rising dust in construction, such as using dust removal devices (e.g., water sprays), covering bare soil and dust-prone materials with protective nets and gravel, and conducting real-time monitoring of suspended particulates in cooperation with professional departments.

Noise management

Strictly complying with the *Emission Standard of Environment Noise for Boundary of Construction Site*, Tian Lun Gas properly arranges construction procedures by adopting construction equipment with high efficiency and low noise and improving operation level to reduce its impact on the environment. At the same time, Tian Lun Gas requires strict control of working hours of construction (e.g., prevent working at noon or night) and beforehand consultation with residents in the region. By the end of the year, our construction projects have never violated the noise control standards.

• Green office

Adhering to the philosophy of "green office", Tian Lun Gas encourages all of its employees to take responsibility to protect the environment and build awareness of reducing cost and increasing efficiency. The Group strictly manages the procurement and distribution of office supplies, advocates "paperless" offices, and strengthens its effort to reduce cost and food waste in canteens.

Tian Lun Gas's management measures to improve the efficiency of resource use

Electricity	 Publicise and implement the principle of energy conservation and cost reduction, and raise employees' awareness of energy conservation; Standardise the use of lighting equipment and require the staff to turn off the light immediately after using it, turn office equipment into power-saving mode when it is not used, and avoid excessive use of air conditioning in the office;
Oil	 Implement the <i>Plans of New Energy Vehicle Replacement of Tian Lun Group</i>, widely promote NEVs across the Group, and encourage the replacement of fossil fuel vehicles with NEVs to curb gasoline consumption; Strengthen the management of official vehicles (e.g., prohibiting the private use of official vehicles to curb gasoline consumption), inspect gasoline storage on a regular basis, and phase out vehicles which are detrimental to environmental protection with high gasoline consumption;
Water	 Educate employees' to turn off faucets when not in use and avoid wasting running water to preserve water resource; Strengthen the maintenance and adaptation of water equipment to save water; Install recycling devices for rainwater collection and keep them under timely maintenance.

Use of energy and water resources (2020-2022)

Indicator	Unit	2022	2021	2020
Gasoline	Tonnes	155.34	265.74	94.32
Diesel ³	Tonnes	8.89	98.35	0
Natural gas	10,000 m³	46.14	45.33	67.56
Direct total energy consumption	MWH	11,710.42	14,320.04	13,983.01
Electricity*	MWH	43,923.23	42,837.06	40,605.68
Purchased heat	GJ	94,659.17	62,456.37	10,696.97
Indirect total energy consumption*	MWH	70,202.90	60,176.45	43,575.42
Total energy consumption*	MWH	81,913.31	74,496.49	57,558.43
Energy consumption intensity*	MWH/Million RMB revenue	10.86	9.74	8.94
Total water consumption	Tonnes	113,717.81	120,113.00	56,349.20
Water consumption intensity	Tonnes/Million RMB revenue	15.08	15.70	8.75

Total waste discharge and intensity (2020-2022)

Indicator	Unit	2022	2021	2020
Total discharge of wastewater	Tonnes	54,470.31	61,256.53	51,676.74
Intensity of wastewater discharge	Tonnes/Million RMB revenue	7.22	8.01	8.02
Total discharge of hazardous waste	Tonnes	8.42	12.57	12.73
Discharge intensity of hazardous wastes	Tonnes/Million RMB revenue	0.00112	0.00164	0.00198
Total discharge of non-hazardous waste	Tonnes	535.08	549.86	569.58
Discharge intensity of non-hazardous wastes	Tonnes/Million RMB revenue	0.07	0.07	0.09
Nitrogen oxide	Tonnes	1.37	2.10	2.10
Sulfur dioxide	Tonnes	0.003	0.007	0.002
Particulate matter (PM)	Tonnes	0.13	0.20	0.20

³ Compared with 2021, the decrease of diesel use in 2022 is primarily attributed to two factors: 1) The Group phased out all diesel vehicles in 2022; 2) The stable power supply in each regional subsidiary significantly reduced the gas facilities' demand of diesel power.

^{*} The statistics of electric power use and electricity-related data for 2021 and 2020 are rectified in this report according to the updated statistical dimensions.

CLIMATE CHANGE

In the context of the national "dual carbon" policy and frequent extreme weather, Tian Lun Gas adheres to green development. According to the framework and recommendations of the Task Force on Climate-related Financial Disclosures (TCFD), Tian Lun Gas gradually improves its ability to deal with climate change in four aspects, including governance, strategy, risk management, indicators and targets, and strives to achieve its own goals of carbon emission reduction and carbon neutrality.

Climate governance

Tian Lun Gas continues to improve the climate change governance mechanism with climate change factors included in strategic decision-making and daily operation management, and is committed to creating long-term and stable environmental value. The Group's ESG Committee at the board level is responsible for overseeing the strategic planning of climate change and the setting and achievement of related goals. At the same time, the Group has set up the ESG Management Team and the ESG Working Group under the ESG Committee to promote the realisation of climate change and "dual carbon" targets, and continuously improve climate risk management.

Climate strategy

Tian Lun Gas refers to the guidance of the Task Force on Climate-related Financial Disclosures (TCFD), and combines its own business characteristics as well as the possibility and scope of risks. It proactively identifies climate-related physical and transition risks that have a substantial impact on the business, and further develops special measures to deal with climate risks, so as to reduce the negative impact of relevant risks on the business operation.

The list of climate change risk identification and response

Risk type	Specific risk	Risk description	Time range	Risk response
Transition Risk	Policy and legal risk	With the proposal of the national "dual carbon" target and the opening of the national carbon trading market, Tian Lun Gas may have to pay extra costs due to insufficient carbon allowances if the Group is included in the carbon trading system in the future, resulting in the cost increase in business operation and investment. At the same time, relevant quota allocation, carbon price, etc. will also bring the risk of increasing the fulfilment cost of enterprises.	Medium-term	 Tian Lun Gas will actively carry out external cooperation to develop the comprehensive energy business and strive to promote business transformation. At present, Tian Lun Gas is actively arranging zero-carbon services such as gas-electricity collaboration, breaking through the disadvantages of the existing single energy supply mode and continuously promoting the reform of the traditional energy structure. Tian Lun Gas will continue to pay attention to the existing carbon trading policies and maintain close communication with the regulatory authorities. The Group will timely formulate and adjust the Group's greenhouse gas control strategies according to the policy and carbon trading market, and avoid the additional fulfilment costs caused by the inclusion of a carbon trading system.



The list of climate change risk identification and response

Risk type	Specific risk	Risk description	Time range	Risk response
	Technical	In the context of the national "dual carbon" target, Tian Lun Gas needs to continuously increase the investment and development of energy-saving and emission-reduction technologies and low-carbon energy technologies. The Group has to deploy and apply more energy-saving and environment-friendly technologies and facilities. Failure to invest in technology will impose additional research costs on the Group and slow down its efforts to make a low-carbon transition.	Medium-term	Tian Lun Gas will continue to pay attention to the development of low-carbon technology and accelerate the layout of renewable energy, green technology, energy storage and carbon dioxide capture, storage and utilisation technology; Extensive industry-university-research cooperation should be carried out to jointly build an ecological closed-loop system for the development, production, promotion and use of low-carbon technologies, so as to achieve coordinated industrial development.
	Market risk	With the promotion and call for the national energy structure reform, downstream industrial and commercial clients and residents may tend to choose lower-carbon energy products and reduce their demand for traditional natural gas, which will affect the Group's operating income.	Medium- and long-term	While maintaining the development of a high-quality urban gas business, Tian Lun Gas is further expanding and innovating its low-carbon energy business. The Group is accelerating the construction of zero-carbon and carbon-negative energy such as "gaselectricity collaboration" in order to fulfil the low-carbon transformation needs of industrial and commercial clients and ordinary residents.
	Reputational risk	As climate change concerns, various stakeholders have made the Group's management of climate change a key issue and expect to take active measures to cope with climate change. Failure to respond in a timely manner may affect stakeholders' decisions and result in reputational damage.	Short- and medium-term	Tian Lun Gas actively communicates with investors and stakeholders on climate change response and the Group's ESG work; The Group can disclose the measures taken by the Group in low-carbon operation and reducing greenhouse gas emissions in the annual report and ESG report in order to maintain a good corporate image.

The list of climate change risk identification and response

Risk type	Specific risk	Risk description	Time range	Risk response
Physical Risk	Acute risk	Extreme weather conditions such as typhoon, extreme rainfall, and floods may cause damage to the Group's gas supply pipelines and stations, which will affect the stability of the gas supply, and results in possible breach of contract, compensation and legal liability due to business interruption and other issues. Extreme weather conditions (such as extremely cold weather) may cause natural gas supply shortages and photovoltaic equipment failure. Failure to ensure a stable gas supply and stable operation of photovoltaic equipment under extreme weather conditions will have a negative impact on the Group's public image and business revenue.	Long-term	 Tian Lun Gas will continue to improve the "Emergency Management Plan", and timely repair damaged equipment and facilities to maintain the stability of the gas supply; Tian Lun Gas requires all member enterprises to formulate the Emergency Plan for Cutting off or Limiting Gas Supply and the Plan for Guaranteed Gas Supply in Peak Season according to their own situations, and pay real-time attention to weather changes and fluctuations of operational gas volume in each operation area. At the same time, the Group establishes an emergency warning and response mechanism for gas supply. The Group coordinates upstream units in advance, increases contract gas volume, and timely connects with the gas pipeline network of surrounding gas companies to supplement pipeline gas sources. In terms of engineering design, the Group takes into account the wind load and snow load coefficient which rarely happen in 50 years, and adopts the construction technology of counterweight blocks and expansion bolts to ensure the stable operation of photovoltaic equipment.
	Chronic risk	 Long-term climate change will cause sea level rise, which will affect coastal operations, equipment and facilities, resulting in lower operating revenues and nonoperating expenses; Increasing temperature year by year will lead to frequent hot weather in summer, which further aggravates the Group's energy consumption, reduces operation efficiency and increases the frequency of abnormal power supply and fire accidents. 	Long-term	 Tian Lun Gas will regularly monitor the rise of sea level in the long term, and reasonably project the market development plan and strategic layout. The Group requires its member enterprises to carry out inspection work closely in high-temperature weather, and improve supporting equipment to ensure the safety of production and operation. At the same time, the Group actively carries out fire drills to improve its emergency response capability.

Climate risk management

Tian Lun Gas incorporates climate-related risk management into the overall ESG management framework. Under the urging and support of the ESG Committee, the ESG working group coordinates and promotes the implementation of climate-related risk management in the Group and its member enterprises to continuously improve the Group's ability to adapt to climate change and adequately mitigate the impact of climate change.

Climate reduction target

Tian Lun Gas constantly watches and tracks its carbon dioxide emissions, and regularly discloses the greenhouse gas emissions data for the past three years. At the same time, Tian Lun Gas also continues to pay attention to methane management. As the second largest greenhouse gas that causes global warming, methane has a significant impact on global climate change. Tian Lun Gas strictly carries out methane monitoring and actively implements control measures on methane emissions. It reduces methane leakage and escape in all aspects of business operations, and forms a closed-loop control over the whole process. Tian Lun Gas will actively promote the setting of environmental goals of the Group and its member enterprises with its own practical actions, strive to minimise the impact of climate change, and help achieve the national carbon peaking and carbon neutrality goals.

Emission and intensity of greenhouse gases (2020-2022)

Indicator	Unit	2022	2021	2020
Scope 1: Direct emissions of greenhouse gases	tCO ₂ e	2,956.74	4,507.79	3,254.40
Scope 2: Indirect emissions of greenhouse gases*	tCO ₂ e	35,931.91	31,758.53	28,816.96
Total emission of greenhouse gases*	tCO ₂ e	38,888.65	36,266.32	32,071.36
Scope 1 emission intensity	tCO ₂ e/Million RMB revenue	0.39	0.59	0.51
Scope 2 emission intensity*	tCO ₂ e/Million RMB revenue	4.76	4.15	4.47
Total emission intensity of greenhouse gases*	tCO ₂ e/Million RMB revenue	5.16	4.74	4.98

^{*} The statistics of electric power use and electricity-related data for 2021 and 2020 are rectified in this report according to the updated statistical dimensions.

LOW-CARBON DEVELOPMENT

To tackle climate change and help meet the national "dual carbon" targets, Tian Lun Gas is committed to delivering more clean energy. By leveraging our strengths in technology and market share, our business expands to low-carbon or zero-carbon services to build a green energy system and low-carbon service ecosystem.

Rural gasification program

Catalysing energy transformation in rural areas is an important approach for Tian Lun Gas to help realise the national "dual carbon" goals and facilitate rural revitalisation. By promoting the rural gasification program, we further improved the living standards and upgraded industries in rural areas, fostering a green and beautiful countryside.

We pushed forward the rural gasification program in a case-by-case and orderly fashion to adapt to the specific conditions of each county or city, paving the way for rural gasification with various types and characteristics. We also provided a free gas connection from street main to home, in order to offer clean, economical, and safe new energy options for rural residents.

Highlights of "rural gasification program"

By the end of 2022:

- Total natural gas users reached nearly 2 million;
- A total of **6** natural gas facilities were installed and the total length of natural gas transmission and distribution pipelines reached 26,880 kilometres;
- A total of **2,597,700 tonnes** of coal consumption has been replaced by natural gas, reducing **1,189,300 tonnes** of GHG and **3,600 tonnes** of PM2.5.





Rural gasification program promoted in counties like Lankao and Jia in Henan province



In 2022, we carried out the rural gasification program for 80,000 households and built 2,200 kilometres of medium-pressure pipelines.



"Coal-to-gas" project for Five-start New Material Technology Co., Ltd in Henan province



Baofeng Five-star Graphite is a professional manufacturer of high-purity graphite products. Through the "coal-to-gas" project by Tian Lun Gas, the company switched energy use from coal to gas. Each year, its natural gas consumption stabilised at around 3 million cubic meters, an equivalent of 3,900 tonnes

of coals, helping reduce 44 tonnes of CO₂ and 110 tonnes of SO₂ emissions.

Gas-electric coordination

In response to the national strategy of "promoting clean energy such as photovoltaic (PV) and biomass in rural areas", Tian Lun Gas is working to provide distributed photovoltaic energy. Meanwhile, built on our natural gas customer base, the Group becomes a vital force in the rural energy transition by helping the government facilitate the development of clean energy in rural areas, which also aligns with the national "dual carbon" goals and rural revitalisation strategy.

Based on the existing natural gas service, Tian Lun Gas provided rooftop solar power by taking out rooftop leases and investing in the installation of a distributed photovoltaic system on the rooftops, and combined the revenue model of rooftop solar power generation with natural gas business. We offered mixed products and services that include rooftop rentals, gas fees, connection fees, residential gas appliances, smart home appliances and maintenance, and repair and replacement of natural gas equipment to meet users' diverse demands and maximise profits.

In terms of distributed photovoltaic supply for commercial and industrial uses, Tian Lun Gas adopted a business model that combines natural gas, photovoltaics, and smart energy management. We provided free installation of rooftop solar power generation equipment for commercial and industrial users and gave users a discount on electricity prices lower than prices set by the state grid through an energy management contract to reduce the cost of electricity. Meanwhile, we combined natural gas service with photovoltaic supply and smart energy management to offer users smart and integrated energy services.

In May 2022, Tian Lun Gas implemented the "gas-electric coordination" project in Hebi, Xuchang, Pingdingshan, Shangcheng, etc., and achieved grid-connected photovoltaic power generation, a critical step forward in promoting energy upgrading at the township level.

Highlights of the "gas-electric coordination" program

By the end of 2022:

- We identified around 100,000 potential users, signed contracts with 4,856 households, equivalent to approximately 125MW of installed photovoltaic capacity;
- We completed the establishment of the Tian Lun photovoltaic cloud platform that enables
 online operation and workflow of the whole business process including development, design,
 dispatching, checking and acceptance, grid connection, operation and maintenance of a
 photovoltaic station;
- We signed strategic partnership deals with state-owned enterprises including State Power Investment Corporation, China Energy Conservation & Environmental Protection Group, and Power Construction Corporation of China; we also cooperated with companies like Jinko Power Technology and China Power Complete Equipment on photovoltaic business.





Tian Lun Gas partnered with many enterprises to engage in photovoltaic business

In late September 2022, Tian Lun Gas and Jinko Power Technology signed a cooperation agreement that plans to collaborate in five counties and cities including Xichuan, Yiyang, Luoning, Weishi, and Xin'an of Henan province. By the end of 2022, over 700 valid users (about 15 MW) have been developed. Meanwhile, the Group planned to partner with Power Construction Corporation of China in 16 counties including Xinyang, Nanyang, Kaifeng, and Puyang of Henan province; by the end of 2022, we had finished the preparatory work including market research, data collection, and feasibility study review in those regions.



Gas-electric coordination was promoted in Xiaochang Village, Zhangguanying Town, Lushan County, Pingdingshan City, Henan Province



As of the end of 2022, we had completed the installation of a residential PV system in 10 households in Xiaochang Village, Zhangguanying Town, Lushan County of Pingdingshan City, with a total installed capacity of 0.282 MW. Each year, the project would reduce 112.8 tonnes of standard coal, 246.75 tonnes of $\mathrm{CO_2}$ emissions, 10.5 tonnes of $\mathrm{SO_2}$ emissions, and 95.88 tonnes of particulate matter emissions.



Tian Lun Gas launched campaigns to promote gas-electric coordination in counties and villages



In 2022, led by local governments, Tian Lun Gas launched campaigns to promote "gaselectric coordination" in several villages and counties of Henan province, introducing knowledge regarding PV installation, as well as the security and cost-effectiveness of using PV energy to local governments and residents. Over 100 campaigns were held throughout the year, covering 2 million rural households.





Employee-centred Philosophy

Material issues addressed in this section	HKEX ESG indicators involved in this section	Capital market issues discussed in this section
 Protection of employees' rights and interests Equal and inclusive recruitment The ban on forced labour and child labour Career training and growth 	B1 Employment B3 Development and training B4 Labour standards	 Local recruitment Inclusive recruitment Employee benefits Employee care Employee communication mechanism
SDGs covered in this section	1 POVERTY ・	5 GRADER 10 REPORTED REQUIRES

Performance highlights

- Total number of employees hit 3,355, including 569 new hires in 2022;
- Offered training for all employees, including 109 courses enrolled by 100% of employees, with 162,804 training hours in total and 48.53 hours per person;
- Selected 38 employees as management trainees with a transparent selection process;
- Added the post of the Director of the Female Employee Committee in the labour union to protect the rights of female employees.

Committed to the employee-centred philosophy, Tian Lun Gas strives to build a talent management system that cares for the employees by protecting their rights and enabling their growth, making employees feel a sense of belonging to achieve collaborative growth.

EMPLOYEE RIGHTS

Abiding by the Labour Law of the People's Republic of China, the Employment Contract Law of the People's Republic of China, and the Regulation on the Implementation of the Employment Contract Law of the People's Republic of China, Tian Lun Gas formulated internal guidelines including the Labour Contract Management Measures, the Recruitment Management Measures and the Guidelines for Flexible Working Time Application of Tian Lun Gas, specifying the management measures for labour contracts and recruitment, protecting the rights of employees by ensuring a transparent selection process and equal opportunities for all.



People-oriented Management

The number of employees recruited in 2022

Category	Number	
Total number of employees		3,355
New hires		569
Physically-challenged employees		11
By position	Management	201
	Middle-level employees	408
	Rank-and-file employees	2,746
By gender	Male	2,072
	Female	1,283
By age	25 and below	143
	25-30	512
	30-40	1,614
	40 and above	1,086
By region	Employees from the Chinese mainland	3,350
	Employees from Hong Kong, Macao, Taiwan, and overseas	5

The number of separations and turnover rate in 2022

Category		Number	Turnover rate (%)
Total departed empl	oyees	720	17.67%
By gender	Male	481	18.84%
	Female	239	15.70%
By age	25 and below	86	37.55%
	25-30	171	25.04%
	30-40	269	14.29%
	40 and above	194	15.16%
By region	Employees from the Chinese mainland	719	17.67%
	Employees from Hong Kong, Macao, Taiwan, and overseas	1	16.67%

To improve our human rights protection system, apart from abiding by relevant laws and regulations including the *Law of the People's Republic of China on the Protection of Minors*, the *Provisions on the Prohibition of Using Child Labour*, the *Special Provisions on the Labour Protection of Female Employees*, and the *Law on the Protection of the Rights and Interests of Women*, Tian Lun Gas formulated corporate-wide measures including the *Management Measures for Background Investigation of Employees and the Attendance and Leave Management Measures*. According to the measures, we ban all forms of child labour, forced labour, and discrimination based on race, sex, age, complexion, sex, ethnic tradition, religion, or nationality while making further pledges to protect the fundamental rights of female employees. In case of any violation, the employees concerned will be warned, recorded for misconduct, or dismissed in accordance with the *Violations and Penalties Rules of Tian Lun Gas*. In 2022, none of such discriminative cases occurred.

Meanwhile, Tian Lun Gas keeps making efforts toward diversity and inclusion by organising on-campus job fairs and offering job opportunities for physically-challenged people. We signed contracts with 85 graduates at the job fairs we held in 2022 at 12 universities, including Zhengzhou University, Zhongnan University of Economics and Law, China University of Petroleum (East China), and Henan University of Economics and Law.







EMPLOYEE GROWTH

Tian Lun Gas regards employee training as the primary driver of business growth. We offer training courses, compensation incentives, and many other resources to help employees grow in accordance with the *Talent Recommendation Management Measures*.

We keep improving the training of our employees to enhance their knowledge and skills. In 2022, we opened 109 online and offline courses for all employees, reaching 162,804 training hours in total and 48.53 hours per person. The courses cover business compliance, professional skills, and environmental protection.

Percentage of employees trained, total training hour and average training hours in 2022

Category		Number of employees trained	Percentage of employees trained	Total training hours	Average training hours
By position	Management	2,072	100%	9,671	4.67
	Middle-level employees	1,283	100%	19,780	15.42
	Rank-and-file employees	143	100%	133,353	932.54
By gender	Male	512	100%	100,598	196.48
	Female	1,614	100%	62,206	38.54

Professional courses opened in 2022

Business segments	Theme	Number of courses
Urban Gas:	Engineering and technology	20
	Financial management	17
Organised 28 live professional	Human resources	16
training sessions, and opened 94 professional courses with 116 hours	Customer and value-added services	14
in total.	Security management	12
	Cost management	4
	New energy	3
	Marketing	2
	Operation management	2
	Procurement management	1
	Risk control and legal affairs	1
	Market exploration	1
	System operations	1
New energy:	General management	8
	Operational management	5
Organised 4 live professional training sessions, and opened 15 professional courses with 14 hours in total.	Security management	2

To further diversify our training resources and accelerate the growth of employees, Tian Lun Gas introduced training from external education institutions to provide employees with more professional guidance.



Tian Lun Gas provided training to employees on photovoltaic market exploration



To help employees learn more ways to tap the photovoltaic market, Tian Lun Gas hired subject matter experts from external institutions to train relevant employees. 52 employees joined the training and acquired professional knowledge, which enabled them to help users understand the industry and its potential.



People-oriented Management



Tian Lun Gas organised training on value-added service in 5 key regions



In 2022, our employees from 5 key regions received training on value-added service. Through the training, employees realised the importance of customer support and learned the workflow, strategies, and techniques for carrying out the service. The training also prepared them for remote working scenarios.

To improve our compensation management system and motivate employees to push for the long-term growth of the Group, Tian Lun Gas has formulated the *Remuneration Management Measures*, the *Internal Competition Management Measures* and the *Employee Performance Assessment Management Measures*. The Group also provides a transparent plan for compensation and share incentives well as a fair system for evaluation and selection, in line with our measures for compensation management, internal selection, and performance review. In 2022, we reviewed and adjusted the compensation structure and bonus payments for all employees to give them more incentives.

Our measures for compensation management and performance review

Year-end bonus:

Provide 1.5 to 3.5 times the salary of employees.

Performance review based on ESG standards:

Sign a letter of responsibility with employees whose work involves ESG aspects.

Performance incentive plan:

Optimised the performance incentive plan for traditional business (including value-added business) and built a plan for new business. Based on our core values and annual visions, we gathered feedback from front-line employees and identified the problems with the original plan. The new plans were created after we set the directions through benchmarking.

Incentive plan for outstanding employees:

Created an incentive plan for outstanding teams and individuals. The plan includes compensation adjustment, promotion, and selection priority after being added to the talent pool. This motivates other employees to learn from them and strive for higher goals.

Internal selection process:

Organised the selection of trainees for management positions, including the president, vice president, and team leaders. Team leader trainees are selected among employees with a bachelor's degree and above. Candidates must pass a qualification check, initial professional review, written examination, and manager review to be selected.

EMPLOYEE CARE

Tian Lun Gas manages the employees' working hours, paid leave, and other benefits according to the *Benefits Management Measures*. We constantly strengthen our connection with employees through the labour union and various recreational and sports activities, making employees feel our care in daily work and life.

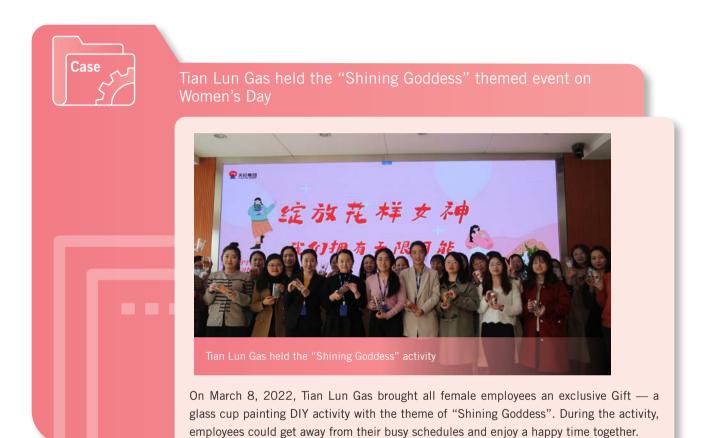
Following the national statutory requirements, Tian Lun Gas provides employees with all types of paid leave, such as annual, marriage, and maternity leave. To help employees get together with their families far apart, all employees can take family care leave 5 times a year, with 50 days in total. Meanwhile, we offer holiday rewards, wedding and funeral funds, commute subsidies, housing subsidies, night shift allowance, and other benefits to enhance the employees' sense of belonging from various aspects.

To learn about the employees' needs in everyday work and life and build a healthy working environment, Tian Lun Gas is committed to optimising our communication with employees. In 2022, apart from setting up the representative congress of workers and staff, we improved the structure of the labour union to facilitate communication with employees and promote democratic decision-making and supervision. The union has 10 committee members, including the chair of the union, the director of the female employees' committee and 2 members of the committee, ensuring the rights and interests of female employees are strongly protected.



People-oriented Management

To help employees grow with the Group and connect them more closely together, Tian Lun Gas keeps introducing new recreational and sports activities on important dates, such as Women's Day, the Mid-Autumn Festival, and the Group's annual party.





Tian Lun Gas organised a Zongzi DIY activity for the Dragon Boat Festival



As we approached the Dragon Boat Festival in 2022, we held a Zongzi DIY activity joined by over 30 managers and employees. During this activity, everyone showed their skills and had fun making Zongzi by hand. The activity enriched the cultural life of employees as they were immersed in the tradition of the Dragon Boat Festival.





Tian Lun Gas held an activity on Teachers' Day



On September 9, 2022, the Group held "The Dream Makers" activity, where we gave thank-you letters to excellent mentors of the Group and instructors of gas lectures.



Material issues addressed in this section	HKEX ESG indicators involved in this section	Capital market issues discussed in this section
 Rural revitalisation Community relations Protection of rights and interests of locations of operation/local residents Social welfare Land use and conservation 	A3 Environment and natural resources B8 Community investment	 Types of charitable activities Charitable donation Natural ecosystems protection programs Community relations
SDGs covered in this section	11 NO SUSTIMATE CRITIS The proverty 11 AND COMMANDERS 11 A	12 RISPONSIBLE ON CONSIDERION AND PRODUCTION OF THE ON LAND

Performance highlights

- Donations of RMB912,000 in various categories;
- 1,705 jobs provided for rural residents.

Tian Lun Gas also underpins the development of the whole society while speeding up our own pace. We proactively undertake corporate social responsibility, providing solutions and strategies for social welfare, rural revitalisation, and other essential issues. At the same time, we work together with local communities on biodiversity conservation and land use, reaching a good relationship with them.

COMMUNITY RELATIONS

Amid our business operations, Tian Lun Gas strictly complies with the *Environmental Protection Law of the People's Republic of China*, the *Water and Soil Conservation Law of the People's Republic of China*, the *Land Administration Law of the People's Republic of China*, the *Law of the People's Republic of China on Work Safety*, and other relevant laws and regulations. We also formulate policies and initiatives relating to community relations and ecological protection in accordance with the actual circumstances. Therefore, the potential impacts on the ecological environment can be minimised and we can maintain good relations with the local communities.

Harmonious development

On land acquisition for a project, we strictly abide by the local rules and regulations regarding compensation and give compensation higher than the local government's standards. We actively communicate with the local county, township, and village authorities for the land requisitioned for projects. For temporary land acquisition, we will carry out on-site measurements, provide one-off compensation according to local standards after checking. For permanent land acquisition, we will proceed with relevant procedures obtaining all the necessary permits such as the planning permit, the land use permit, and the land certificate to ensure that the follow-up construction is compliant.

We value the local residents' concerns and take immediate action to solve problems. If a complaint is received during the construction process, the person in charge would be responsible for handling the possible problem, learning about the residents' demands at the first time. On-site investigations would be conducted to verify the problem and to carry out negotiations. In accordance with the actual situation, we will promptly correct any deficiencies and compensate the residents. If the problem concerns multiple stakeholders, we will work with the local governments, communities, villages, and other third-party forces to promote communications and raise solutions so as to maintain a harmonious and reciprocal relationship between the Group and the communities.

In addition, Tian Lun Gas invites senior ADB environmental experts and social security experts to conduct monitoring and evaluation on the environmental and social impacts of the projects that have been carried out once every six months, and the results will be published on the Group's website.

Ecological protection

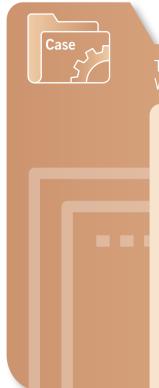
Tian Lun Gas strictly complies with relevant national policies. During the site selection and feasibility study of projects, the Group carries out in advance a number of risk assessments related to biodiversity and land use, such as assessments of the environment, seismic safety, geological disasters and overlaid mineral resources, soil and water conservation, and safety as well as the cultural heritage survey. In the construction of the project, taking into account the conditions of the operation sites, the Group prioritises eco-friendly methods to avoid negative impacts on land and ecology as far as possible. After the project is completed, the Group will coordinate with all parties to carry out the acceptance check on environment, safety, and soil and water conservation, etc. Suppose there is a partial impact on the land and the surrounding ecological system, the Group will carry out restoration at the first time to ensure "no net loss" of biodiversity and land use to minimise the potential damage on the local ecological environment and to protect biodiversity.



Tian Lun Gas carried out soil and water conservation work in Xiping gas supply project in the Henan pipeline network



We protect the ecological environment along the pipeline to the utmost. Tian Lun Gas carried out an environmental assessment in advance for the siting of the Xiping gas supply line for the Henan pipeline network in avoidance of environmentally sensitive sites, residential areas, cultural and educational sites, water conservation areas, protected places of interest, urban planning areas, scenic tour zones and nature reserves. In addition, for water source areas and rivers, we used directional drilling for the construction and promptly restored the original landscape of the drilling site to prevent water and soil erosion.



Tian Lun Gas carried out restoration of farmland in Wangwugang Village, Hebi City



In July 2022, during the flood season, some of the farmland of Wangwugang Village in Hebi was partly washed away by pouring rains, resulting in 50 metres of exposed gas pipeline. In order to eliminate the safety hazard as soon as possible, Hebi Tian Lun New Energy Co., Ltd. immediately communicated with the village committee of Wangwugang Village and the two parties jointly backfilled, compacted, and levelled the land in the eroded area. At the same time, in order to prevent the fields in the area from being damaged again by the rains, Tian Lun Gas built berms on the banks of the eroded area to enhance the resistance of the fields to the flood rains.

RURAL REVITALISATION

Tian Lun Gas complies with the *Charity Law of the People's Republic of China* and actively provides voluntary services. We comprehensively promote rural revitalisation in operation areas and provide help and public welfare donations to the community to make our contributions to achieving common prosperity. In 2022, Tian Lun Gas donated a total of RMB912,000 for rural revitalisation, pandemic prevention and control, and helping the vulnerable.

Proactively fulfilling our CSR in terms of rural revitalisation, we have been carrying out employment assistance providing 1,705 jobs through the rural gasification program and the gas-electricity coordination program. We are dedicated to doing our part in consolidating and expanding achievements in poverty alleviation and facilitating rural revitalisation.



Tian Lun Gas participated in the charity event "Gathering Together to Contribute to Rural Revitalisation"



On 31 August 2022, the seventh "China Charity Day" charity event in Henan Province and the launching ceremony of the special event for rural revitalisation in Henan in 2022 were successfully held. In order to consolidate the achievements of poverty eradication and to advance rural revitalisation, the Civil Affairs Department of Henan Province and Henan Charity Federation jointly set up a special fund for the relief of those in need. Tian Lun Gas donated RMB300,000 to the foundation, hoping to help more people.





Liquan Hong Yuan, a subsidiary of Tian Lun Gas, made a donation



On 6 January 2022, Liquan Hong Yuan Gas Co., Ltd., a Tian Lun Gas subsidiary, donated RMB200,000 to the Red Cross Society of Liquan County to provide financial support for the pandemic prevention and control in Liquan County, shouldering social responsibility and making our contribution to help save lives from the pandemic.



Tian Lun Gas took proactive steps to support disadvantaged communities

Tian Lun Gas demonstrates a strong commitment to social responsibility by continuously providing assistance to disadvantaged communities, actively engaging in community public welfare initiatives, and making a positive impact on social development. In 2022, the Group continued to provide gas fee discounts and deferred payments to single mothers, along with baby formula, diapers, infant toys and other maternal and child daily necessities.

ESG KPIS (2020-2022)

Indicator	Unit	2022	2021	2020
Economic indicators				
Total asset	Million RMB	15,959	15,104	12,918
Total revenue	Million RMB	7,543	7,650	6,440
Profit for the year	Million RMB	469	1,028	1,064
Earnings per share-basic	RMB	0.45	1.00	1.04
Total pipeline gas users	Users	5,294,315	4,938,642	4,204,256
Natural gas sales volume	10,000 m³	191,177	194,238	151,461
Long-haul pipeline gas transmission volume	10,000 m³	75,931	81,287	76,563
Environmental indicators				
Total discharge of wastewater	Tonnes	54,470.31	61,256.53	51,676.74
Intensity of wastewater discharge	Tonnes/Million RMB revenue	7.22	8.01	8.02
Total emission of greenhouse gases	tCO ₂ e (tons of carbon dioxide equivalent)	38,888.65	36,266.32	32,071.36
Emissions intensity of greenhouse gases	tCO ₂ e/Million RMB revenue	5.16	4.74	4.98
Total discharge of hazardous wastes	Tonnes	8.42	12.57	12.73
Discharge intensity of hazardous wastes	Tonnes/Million RMB revenue	0.00112	0.00164	0.00198
Total discharge of non-hazardous wastes	Tonnes	535.08	549.86	569.58
Discharge intensity of non- hazardous wastes	Tonnes/Million RMB revenue	0.07	0.07	0.09
Total energy consumption	MWh	81,913.31	74,496.49	57,558.43
Energy consumption intensity	MWh/Million RMB revenue	10.86	9.74	8.94
Total water consumption	Tonnes	113,717.81	120,113.00	56,349.20
Water consumption intensity	Tonnes/Million RMB revenue	15.08	15.70	8.75



Indicator	Unit	2022	2021	2020
Social indicators				
Total number of employees	Headcount	3,355	3,506	2,932
Total number of male employees	Headcount	2,072	2,218	1,817
Total number of female employees	Headcount	1,283	1,288	1,115
Percentage of male employees	%	61.76%	63.26%	61.97%
Percentage of female employees	%	38.24%	36.74%	38.03%
The number of work-related fatalities	Headcount	0	0	0
The number of working days lost due to work-related injury	Day	782	173	386
Rate of employee training	%	100	100%	22.03%
Average internal training duration per employee hours.	Hours per person	48.53	47.64	3.76
Number of suppliers	Number	191	317	156
The Group had invested in safety production	RMB10,000	5,134	2,975	1,390
Donations ⁴	RMB10,000	91.20	1,280	1,000

The total donations in 2020 and 2021 made by Tian Lun Group.

ESG Index

Environmenta	al, Social and Governance Index	Section
Environmenta		
Aspect A1: E	missions	
General discl	osure	
relating to air		Green development Climate change
A1.1	The types of emissions and respective emissions data.	Green development
A1.2	Direct (Scope 1) and energy indirect (Scope 2) greenhouse gas emissions (in tonnes) and, where appropriate, intensity (e.g., per unit of production volume, per facility).	Climate change
A1.3	Total hazardous waste produced (in tonnes) and, where appropriate, intensity (e.g., per unit of production volume, per facility).	Green development
A1.4	Total non-hazardous waste produced (in tonnes) and, where appropriate, intensity (e.g., per unit of production volume, per facility).	Green development
A1.5	Description of emission target(s) set and steps taken to achieve them.	Green development
A1.6	Description of how hazardous and non-hazardous wastes are handled, and a description of reduction target(s) set and steps taken to achieve them.	Green development
Aspect A2: U	se of resources	
General discl	osure	
Policies on th	e efficient use of resources, including energy, water and other raw materials.	Green development
A2.1	Direct and/or indirect energy consumption by type (e.g., electricity, gas or oil) in total (kWh in '000s) and intensity (e.g., per unit of production volume, per facility).	Green development
A2.2	Water consumption in total and intensity (e.g., per unit of production volume, per facility).	Green development
A2.3	Description of energy use efficiency target(s) set and steps taken to achieve them.	Green development
A2.4	Description of whether there is any issue in sourcing water that is fit for purpose, water efficiency target(s) set and steps taken to achieve them.	Green development
A2.5	Total packaging material used for finished products (in tonnes) and, if applicable, with reference to per unit produced.	/



ESG Index

Environmental, S	Social and Governance Index	Section
Aspect A3: Envir	ronment and natural resources	
General disclosu	re	
Policies on minii	mising the issuer's significant impacts on the environment and natural resources.	Green development Community relations
A3.1	Description of the significant impacts of activities on the environment and natural resources and the actions taken to manage them.	Green development
Aspect A4: Clima	ate change	
General disclosu	re	
	ification and mitigation of significant climate-related issues which have impacted, may impact, the issuer.	Climate change
A4.1	Description of the significant climate-related issues which have impacted, and those which may impact, the issuer, and the actions taken to manage them.	Climate change
Social		
Employment and	l labour practices	
Aspect B1: Emp	loyment	
relating to comp	and with relevant laws and regulations that have a significant impact on the issuer ensation and dismissal, recruitment and promotion, working hours, rest periods, y, diversity, anti-discrimination, and other benefits and welfare.	Employee rights Employee growth
B1.1	Total workforce by gender, employment type (for example, full- or part-time), age group and geographical region.	Employee rights
B1.2	Employee turnover rate by gender, age group and geographical region.	Employee rights

Environmental	, Social and Governance Index	Section
Aspect B2: He	ealth and safety	
General disclo	sure	
		Safe gas supply Occupational health and safety
B2.1	Number and rate of work-related fatalities occurred in each of the past three years including the reporting year.	Occupational health and safety
B2.2	Lost days due to work injury.	Occupational health and safety
B2.3	Description of occupational health and safety measures adopted, and how they are implemented and monitored.	Safe gas supply Occupational health and safety
Aspect B3: De	velopment and training	
General disclo	sure	
Policies on im of training act	proving employees' knowledge and skills for discharging duties at work. Description ivities.	Employee rights
B3.1	The percentage of employees trained by gender and employee category (e.g., senior management, middle management).	Employee growth
B3.2	The average training hours completed per employee by gender and employee category.	Employee growth
Aspect B4: La	bour standards	
General disclo	sure	
		Employee growth
B4.1	Description of measures to review employment practices to avoid child and forced labour.	Employee rights
B4.2	Description of steps taken to eliminate such practices when discovered.	Employee rights



ESG Index

Environmental, S	Social and Governance Index	Section
Operating practi	ces	
Aspect B5: Supp	oly chain management	
General disclosu	re	
Policies on mana	aging environmental and social risks of the supply chain.	Responsible procurement
B5.1	Number of suppliers by geographical region.	Responsible procurement
B5.2	Description of practices relating to engaging suppliers, number of suppliers where the practices are being implemented, and how they are implemented and monitored.	Responsible procurement
B5.3	Description of practices used to identify environmental and social risks along the supply chain, and how they are implemented and monitored.	Responsible procurement
B5.4	Description of practices used to promote environmentally preferable products and services when selecting suppliers, and how they are implemented and monitored.	Responsible procurement
Aspect B6: Prod	uct responsibility	
General disclosu	re	
relating to healt	and with relevant laws and regulations that have a significant impact on the issuer h and safety, advertising, labelling and privacy matters relating to products and d and methods of redress.	Service excellence Stable gas source Safe gas supply
B6.1	Percentage of total products sold or shipped subject to recalls for safety and health reasons.	/
B6.2	Number of products and service-related complaints received and how they are dealt with.	Service excellence
B6.3	Description of practices relating to observing and protecting intellectual property rights.	Technology innovation
B6.4	Description of quality assurance process and recall procedures.	Safe gas supply
B6.5	Description of consumer data protection and privacy policies, and how they are implemented and monitored.	Service excellence

Environmental, S	Social and Governance Index	Section
Aspect B7: Anti-	corruption	
General disclosu	re	
·	and with relevant laws and regulations that have a significant impact on the issuer ry, extortion, fraud and money laundering.	Risk management Anti-corruption
B7.1	Number of concluded legal cases regarding corrupt practices brought against the issuer or its employees during the reporting period and the outcomes of the cases.	Anti-corruption
B7.2	Description of preventive measures and whistle-blowing procedures, and how they are implemented and monitored.	Risk management Anti-corruption
B7.3	Description of anti-corruption training provided to directors and staff.	Anti-corruption
Community		
Aspect B8: Com	munity investment	
General disclosu	re	
	munity engagement to understand the needs of the communities where the issuer ensure its activities take into consideration the communities' interests.	Community relations Rural revitalisation
B8.1	Focus areas of contribution (e.g., education, environmental concerns, labour needs, health, culture, sport).	Community relations Rural revitalisation
B8.2	Resources contributed (e.g., money or time) to the focus area.	Rural revitalisation



Your Feedback

Your Feedback

Dear readers,

Thank you for reading the 2022 Environmental, Social, and Governance Report of Tian Lun Gas Holdings Limited. To

provide our stakeholders with more would love to hear from you with y				o social responsibilities, we
Please fill in the feedback form be E-mail: hk@tianlungas.com Address: Unit 3905, 39/F, The Ce				is most welcome.
1. How would you rate this	report in general?			
□ Excellent □ Good □ Fair □	□ Poor □ Very poor			
2. How would you rate the	Group's fulfilment	of social and e	nvironmental resp	onsibilities?
Social responsibilities	□ Excellent □ Goo	od □ Fair □ Poo	r □ Very poor	
Environmental responsibilities	☐ Excellent ☐ Goo	od □ Fair □ Poo	r □ Very poor	
 3. Do you agree that this report manifests the social and environmental influences the Group has made through its practices of social responsibility? Strongly agree Agree Strongly disagree 4. How would you rate the disclosure of information, data and indicators on these three dimensions? 				
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