



Stock code : 1853

THE ENVIRONMENTAL, SOCIAL AND GOVERNANCE REPORT

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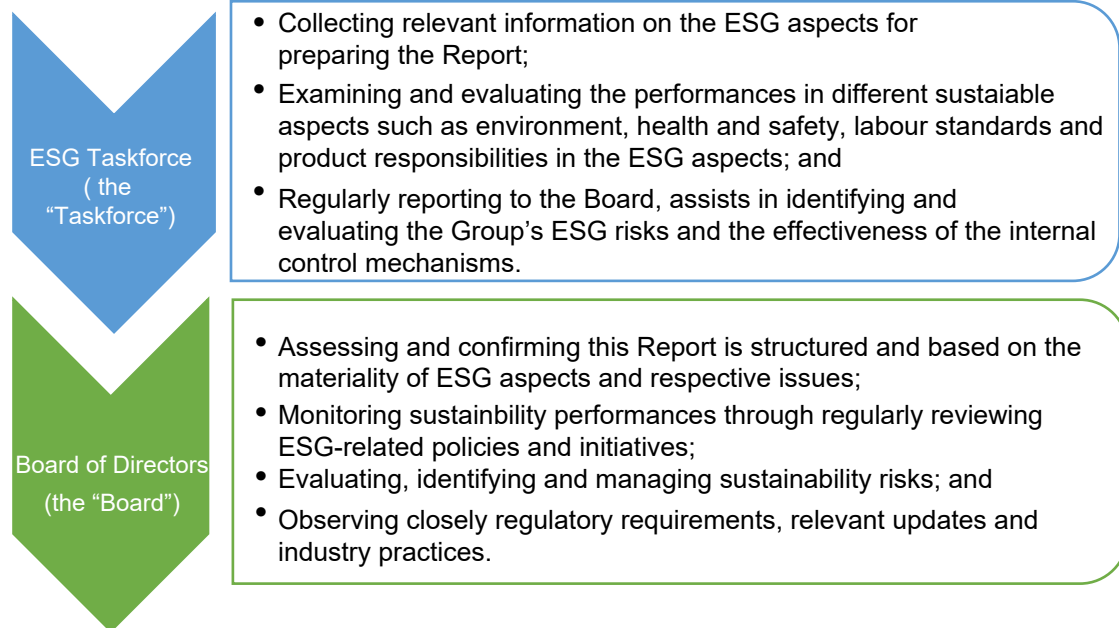
I. INTRODUCTION AND ENVIRONMENTAL, SOCIAL AND GOVERNANCE POLICIES

About the Report

The Environmental, Social and Governance Report (the “Report”) summarizes the initiatives, plans and performance of Jilin Province Chuncheng Heating Company Limited (the “Company” or “We”), together with subsidiaries, (the “Group”) in the environmental, social and governance (“ESG”) aspects, and illustrates the sustainability of its business activities in terms of ESG.

The Group adheres to the management policies of sustainable ESG development and is committed to handling the Group’s ESG matters effectively and responsibly, which we believe are of great significance for our business and operation.

The ESG Governance Structure



Reporting Framework

The Report has been prepared in compliance with all applicable provisions set out in the Environmental, Social and Governance Reporting Guide (the “ESG Reporting Guide”) contained in Appendix 27 to the Main Board Listing Rules of The Stock Exchange of Hong Kong Limited (the “Stock Exchange”).

For the Group’s corporate governance practices and more information, please refer to the Group’s 2020 Annual Report. If there is any conflict or inconsistency, the English version shall prevail. If there is any inconsistency or discrepancy between this Report and the Annual Report of the Group, the Annual Report shall prevail.

Reporting Period

The Report elaborates on the Group’s ESG events, challenges and measures during the year from 1 January 2020 to 31 December 2020 (the “Reporting Period” or the “Year 2020”).

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Reporting Scope

During the Reporting Period, the Group's focused areas and its main businesses were as below:

- (1) Heat supply, the Group's core business (the "Heat Supply")- the Company and its 2 subsidiaries (Jilin Province Xixing Energy Limited ("Xixing Energy") and Changchun Yatai Heating Company Limited ("Yatai Heating")) ; and
- (2) Construction, maintenance and design services (the "Construction, Maintenance and Design Services")- the Group relies on the heat supply industry chain to provide integrated services including (i) engineering construction, (ii) engineering maintenance, (iii) design services, and (iv) electrical and instrument maintenance and repair.

The Group adheres to the corporate mission of "leading the development of the industry and sincerely serving the society (引領行業發展·真誠服務社會)" as its inner driving force, and undertakes social responsibilities benefiting the society in order to continuously contribute to both the development of heating business and the stability in the people's livelihood. During the Reporting Period, the Group remained as an industry leader and raised awareness on the benefits of implementing corporate sustainability. The Group has been unstinting in implementing the branding strategy of "saving energy, reducing consumption and emissions, enhancing efficiency". With the continuous enhancement of sustainability being at the core of ESG management, the Group has integrated ESG into routine production and operational practice through reinforcement of corporate governance, innovative implementation for society responsibility, community contribution etc.

This Report follows the ESG Reporting Guide with a complete index in compliance is available at the end of this Report for reference. Except for provisions that the Group considers are inapplicable to its operations, for which explanations have been given on the rightmost column in the said index, this report has complied with all the "comply or explain" provisions set out in the ESG Reporting Guide. This year's Report is further enhanced, with a wider range of key performance indicators ("KPIs"). In line with these standards, key stakeholders, including operation departments, management and independent third parties, were engaged in the material assessment and identification of the relevant and important environmental, social and governance policies, for incorporation in this Report.



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Stakeholder Engagement

Stakeholders' participation is an indispensable process for the Group to improve its sustainable development performance continuously. Therefore, the Group values the opinions of various stakeholders on its operation and ESG matters. In order to comprehensively understand, respond to and address the major concerns of different stakeholders, the Group has maintained close communication with all these stakeholders, including but not limited to shareholders/investors, customers, contractors/suppliers, employees, the government and regulators, peers, chambers of commerce, industry associations, non-government institutions and media.

Through the diversified and effective communication channels, the expectations of stakeholders are incorporated into our operation and ESG strategies. The stakeholder engagement and communication channels are as follows:

Major Stakeholders	Communication Channel
Employees	Regular performance appraisals Supervisor and talent evaluation mechanism (talent pool) Channels for employees to express their opinions (such as reporting and complaint systems) The trade union and department meetings Internal trainings
Investors/Shareholders	Annual general meeting Annual reports and interim reports, announcements and circulars Investor meetings
Customers	Customer service hotlines WeChat account management
Contractors/Suppliers	Supplier management meetings and events Supplier on-site audit management policy
The government and regulators	Annual reports and interim reports, announcements and circulars On-site visits and inspections
Associations, non- government institutions and media	Voluntary activities Group activities ESG reports

Materiality Assessment

The management and employees who perform major functions in the Group have all participated in preparing the Report to assist the Group in reviewing its operation, identifying relevant ESG matters, and assessing the importance of such relevant matters to our business and stakeholders. Information was collected from relevant departments and business units of the Group based on the major ESG matters that had been assessed.

During the Reporting Period, the Group confirmed that appropriate and effective management policies and control systems for ESG matters have been established and that the disclosed contents are in compliance with the requirements of the ESG Reporting Guide. Corporate governance is addressed separately in the "Corporate Governance Report" of the Annual Report. The Group is committed to implementing the environmental policies and safety assessments in business processes comprehensively, through continuously improving its management systems and measures, aiming to minimize the impact on the environment and to achieve zero employee fatalities in business processes.

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Contact us

The Group welcomes stakeholders' to provide valuable advice on this Report or our sustainability performance. Please contact us via email at ccrl-zqb@ccrljt.com.



II. ENVIRONMENTAL

Major scope & aspects

The Group attaches high importance to environmental management in its businesses and has always been committed to fulfilling the responsibility of a state-owned enterprise. Under the leadership of the Board, the Group cooperates with the Changchun Municipal Government to drive the integration of using clean energy and adopting innovative heating technology, and strive to become an outstanding leader in the industry.

In recent years, as the nation vigorously promotes clean energy heating methods and deploys environment plans aiming to “win the war on keeping the skies blue (打赢蓝天保卫战)”, the Group has actively seized the opportunity of industry reform, actively explored clean heating models, comprehensively promoted scientific and innovative technologies, and contributed positively to the prosperous development of the heat supply industry. From research and development of every practical heating technology, to application and upgrade of the “smart heating network (智慧热网)”, and exploration of the “China Clean Heating 2025 (中国清洁供热2025)” model, the Group strives to drive production with technology and reward society with blue skies.

During the Reporting Period, the Group won the awards of the “The Best Investment Value Listed Company (最具投资价值上市公司)”, and the Chairman, Mr. Liu Changchun, as the “Outstanding Entrepreneur of the Year (年度卓越企业家)” in the “10th China Securities Golden Bauhinia Awards (中国證券金紫荆獎)”. During the Reporting Period, the heat supply area of the Group has reached 60,020,000 square meters in Changchun. It is responsible for the heating work of more than 500,000 households in Changchun. The Group formulates scientific environmental protection and measures by adopting the world's leading practices in its operation. The Group also endeavours to fulfil the social responsibility for environmental protection as its efforts to protect the Earth and build a sustainable future for our future generations. In order to monitor the environmental management and minimize the impacts of business operation, the Group has formulated relevant policies for environmental management, while complying with relevant laws and regulations and also promoting employees' awareness on environmental protection.

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The principal business of the Group is Heat Supply which is required to comply with the national law and regulation of the countries including but not limited to “Changchun Urban Heating Supply Regulations” 《長春市城市供熱管理條例》, “Work Safety Law of the PRC” 《中華人民共和國安全生產法》, “Environmental Noise Emission Standards for Industrial Enterprises” 《工業企業廠界環境噪聲排放標準》 and “Clean Heating Plan for Winter in Northern China” 《北方地區冬季清潔取暖規劃 (2017-2021)》. With the expected areas, the total expenditure on municipal heating facility construction, maintenance and design services is also expected to increase accordingly. The business also complies with “Implementation Plan of Jilin Provincial to carry out the Three-Year Action Plan for Winning the Blue Skies Defense War” 《吉林省落實打贏藍天保衛戰三年行動計劃實施方案》. These laws, regulations and rules generally govern the legal requirements, technical standards, and the implementation plan of health, safety and environment.

During the Reporting Period, the Group has not committed to any material breaches of the relevant laws, rules and regulations concerning environmental protection.

1. Emissions

General Disclosures and Key Performance Indicators (“KPIs”)

During the Reporting Period, the Group’s major types of emission were mainly petrol, diesel, electricity, heat, paper and business air travel, which inevitably release nitrogen oxides (NO_x), sulphur oxides (SO_x), particulate matter (PM) and carbon dioxide (CO₂) into the air. The Group is committed to continuously improving the environmental sustainability of its businesses and ensuring that environmental consideration remains one of the keys focuses in fulfilling its obligations to both the environment and community. Recognizing the potential impacts of its businesses on the environment, the Group has established relevant emission reduction and energy saving initiatives to manage the emissions and minimize environmental impacts of its operations.

The Group strictly complies with the environmental protection laws and regulation that are applicable to the business operations. The Group’s legal team has been working closely with the business units to assess the impact of those promulgated environmental protection laws and regulations such as the “Environmental Protection Law of the PRC” 《中華人民共和國環境保護法》, “Prevention and Control of Atmospheric Pollution of the PRC” 《中華人民共和國大氣污染防治法》, “Prevention and Control of Water Pollution of the PRC” 《中華人民共和國水污染防治法》, “Prevention and Control of Environmental Pollution by Solid Waste” 《中華人民共和國固體廢物防治法》 and “National Environmental Emergency Response Plan” 《國家突發環境事件應急預案》 etc.

During the Reporting Period, the Group complied with relevant laws and regulations relating to air and greenhouse gas (“GHG”) emissions, discharge into water and land, and generation of hazardous and non-hazardous waste. The Group did not violate any environmental protection laws or regulations of the region where we operate, nor was it subject to significant fines, non-monetary penalties and litigation relating to environmental protection.

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1.1 *KPIs of Emissions Management*

Types of Emissions and Respective Emission Data

The Group's principal business is Heat Supply by the Company, where most of the heat is purchased from local cogeneration plants. The Group has adopted the smart heating network, 5G transmission, big data analysis and other technologies which can help to achieve real-time operation monitoring, equipment remote control, automatic output adjustment and problem solving, as well as the collection and analysis of operation data. The scientific and technological achievements on heat supply service improves the quality of heating, operational efficiency, and energy saving. In order to benefit more users, the Group enhances and increase the professional qualifications on the construction, maintenance and design business, actively promotes the intelligent heating network system for optimizing the old heating pipe network to establish an energy-saving, environmentally friendly and GHG emissions reduction-oriented heating mode. On the other hand, since Xixing Energy continues to use coal-fired boilers to provide part of the heat, it has installed the electrostatic precipitator and flue-gas desulphurization system as well as managed the facilities, equipment, maintenance works, and operation recording. The management measures for exhaust gas from coal-fired boilers are as follows:

- The entire combustion process is operated by a team with certified boiler workers to ensure the proper use of equipment;
- The exhaust gas emission is regularly inspected and recorded to monitor the operation of the boiler;
- The desulfurization device is well performed to control air pollutants in the environment during operation;
- In the event where an equipment is abnormal during operation, the emission shall be stopped immediately. It can only be turned on after the problem is solved; and
- The water spray pumper must be turned on when the flue gas generated by the boiler passes through the desulfurization device minimizes dust and enters the 100-meter-high chimney to meet the emission standards.

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Moreover, while providing construction, maintenance and design services, engineering staffs travel to heating power stations and customer sites by vehicles. The unleaded petrol and diesel consumed also cause air pollutants to be emitted. The treatment methods and emission reduction measures are as follows:

- Optimizing operating procedures for increasing the loading rate of vehicles and lowering the idle rate;
- Turning off the engine when the vehicle is not in use;
- Eliminating non-compliant vehicles in accordance with national emission policy regulations;
- Selecting unleaded petrol with low sulphur content as fuel; and
- Carrying out regular maintenance and repair of vehicles to effectively reduce fuel consumption and further reduce GHG emissions and exhaust gas emissions.

The Group has formulated relevant policies and procedures to manage the effective use of resources in order to achieve higher energy efficiency and reduce unnecessary material use at corporate offices and daily operations. By adopting the following energy-saving and emission-reduction measures, the Group is actively working to minimize the impact on the environment and continue to respond to environmental issues related to global warming, pollution and environmental diversification:

- Prioritizing the use of equipment and products of low energy consumption and high efficiency;
- Considering the use of renewable energy, whenever appropriate;
- Avoiding unnecessary business trips to reduce carbon emission generated by transportation (eg. air travel);
- Prioritizing the engagement of local suppliers to reduce energy consumption resulting from the transportation of cargoes;
- Ensuring fuel consumption efficiency and road safety by underwent regular maintenance checks with a view to keeping CO₂ emission from the vehicles at the minimum level; and
- Promoting the importance of “reducing carbon emissions” along the supply chain.

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KPIs of All Emissions Management:

The sources of emissions are mainly from fuel consumption in the use of vehicles and boilers, electricity and natural gas consumption at corporate offices, air travel by employees and paper consumption etc. The tables below set out the Group's overall emission management for each business segment during the Reporting Period:

Exhaust gas emissions

Type of emissions	Unit	Year 2020
Nitrogen Oxides (NO _x)	Tonnes	90
Sulphur Oxides (SO _x)	Tonnes	135
Particulate Matter (PM)	Tonnes	13

GHG emissions¹

During the Reporting Period, the GHG emissions of the Group was approximately 273,166.5 tonnes and the total GHG emissions per million RMB revenue was 144 tonnes. An overview is as follows:

Indicator	Total emissions (in tonnes)
Direct GHG emissions (Scope I) – fuel 、 diesel 、 coal and natural gas consumption	212,896
Indirect GHG emissions (Scope II) – electricity consumption	58,984.8
Other indirect emissions (Scope III) – business air travel, paper consumption	1,285.7
Carbon removal ² (Scope I) –planting of trees	N/A
Total GHG emissions	273,166.5
Intensity – unit per million RMB revenue ³	144

Note:

- Such emission data is calculated in accordance with the emission factors of Appendix 27 to the Main Board Listing Rules and their referred documentation as set out by the Stock Exchange, and “General Guideline of The Greenhouse Gas Emissions Accounting and Reporting for Industrial Enterprises” 《工業企業溫室氣體排放核算和報告通則》;
- Due to the epidemic, tree planting activity was suspended; and
- During the Reporting Period, the total revenue of the Group was approximately RMB1,896,949,000. Other intensity data in the Report are also measured using this data.

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Waste Management

The Group adheres to the principles of waste management and is committed to a sound and proper management of all waste generated during our operation. The Group has also implemented policies to reduce waste generation through environmental education, aiming at waste management from the source.

During the Reporting Period, the Group's waste treatment meets the requirements of relevant laws and regulations.

Non-hazardous waste

For the non-hazardous waste, it is generated from the Group's office operations and daily activities. The Group is committed to establishing an electronic and green headquarter, so all departments make good use of the online system. In order to avoid printing and copying files, general notice and data transmission are carried out through the network system in the office. When it is necessary to copy or print files, the employees can print both sides to reduce the use of paper. They are also encouraged to properly classify waste into recyclable and non-recyclable, such as waste paper or packaging boxes are "recyclable" waste, which are stored in designated collection areas. With these measures implemented, employees have enhanced their awareness of waste reduction.

The table below sets out the data on total waste discharge of the Group during the Reporting Period:

Each waste discharge	Unit (in kg)
Hazardous waste	N/A*
Non-hazardous waste – Paper	18,272
Intensity – unit per million RMB revenue	9.6

Note:

* During the daily operations, the business segments generated the amount of hazardous waste that it is not large. Therefore, the data on hazardous waste was not included in the calculation.

Wastewater Discharge

With respect to the wastewater management, the Group ensures all domestic sewage is discharged into the urban sewage pipe network for the proper sewage treatment. The Group advocates water conservation and reduces the generation and waste of domestic wastewater. In view of this, water conservation signs are put up in the pantries, canteens and washrooms to raise employees' awareness of resource conservation for reducing sewage generation. The Group also requires that various chemical and oil contaminants shall not be placed and dumped around the mouth of the domestic waste pipe. In addition, the Group strictly forbids the disposal of pollution sources such as chemicals, oils, solid wastes, etc. at the rainwater pipe network port and separates the rainwater pipes from other sewage ones so that the rainwater can be directly discharged and reused. During the Reporting Period, all domestic sewage by the corporate offices and operations of the Group are considered to be minimal and therefore not reaching to the necessity that requires to be disclosed.

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2. Use of resources/Energy Efficiency Management

General Disclosures and KPIs

The Group upholds and promotes the principle of effective use of resources. To meet the Group's environmental commitments, various efficiency-initiatives have been implemented to minimize resources consumption.

2.1. Energy Consumption

The main types of energy consumed by the Group in its operations include coal, fuel, natural gas and electricity. Its demand for electricity is especially great. The Group has gradually adopted the smart heating network system, which helps it to improve the quality of heating, enhance operational efficiency, and save energy. Energy consumption control and energy saving measures include, but are not limited to:

- The upgrading of the existing wiring and establishment of special lines for better electricity transmission and for reducing damage to the wiring; and
- Optimizing equipment management and improving the technique of the operation to enhance the Group's standards of energy saving and management.

The table below sets out the data on energy consumption of the Group during the Reporting Period:

Types of energy	Unit	Consumption
Diesel	L	13,466
Intensity – unit per million RMB revenue	L	7.1
Unleaded petrol	L	85,839
Intensity – unit per million RMB revenue	L	45.3
Purchased coal	Tonnes	102,522
Intensity – unit per million RMB revenue	Tonnes	54.1
Purchased natural gas	m ³	121,698
Intensity – unit per million RMB revenue	m ³	64.2
Purchased electricity	kWh	81,968,812
Intensity – unit per million RMB revenue	kWh	43,210.9

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Moreover, the Group has gradually replaced coal by natural gas or electricity in its energy consumption, and developed a number of specific energy-saving initiatives to reduce GHG emissions and conserve energy usage at the corporate offices and operation, including:

- Equipment, machines and electronic devices shall be turned off after office hours;
- Indoor temperature is maintained at an optimal level for comfort;
- Facilities shall regularly be checked and maintained to ensure highest energy efficiency;
- Signage is put up at appropriate areas to raise the awareness of energy-saving; and
- LED lighting system is recommended to set up widely in workplaces in order to save energy during the office hours.

2.2 Water Consumption

During the Reporting Period, the Group's main source of water consumption came from the services operation process and the daily use of water by the employees at corporate offices during office hours. The Group monitors water usage on a monthly basis which allows it to monitor and measure the effectiveness of the implement environment practices for water use of each subsidiary.

The table below sets out the water consumption level of the Group during the Reporting Period:

Water consumption	Unit (in m ³)
Water consumption	3,403,973
Intensity – unit per million RMB revenue	1,794.5

To boost the water consumption efficiency, the Group has adopted the following measures:

- Applying water-saving appliances in water facilities as much as possible;
- The faucets should be closed in time after using water to prevent the wastage and leakage of water; and
- If abnormal conditions are detected, the relevant department should be notified in time to prevent any wastage of water resources.

During the Reporting Period, the Group had no problem in sourcing water.

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2.3. Paper Consumption

The Group is committed to a paperless operation, constantly encouraging all employees to reduce paper usage through duplex printing, paper recycle and frequent use of electronic information systems for material sharing or internal administrative documents. Reusable paper products, such as envelopes, are properly recycled wherever possible and appropriate; the use of disposable paper products such as paper cups and paper towels, are discouraged wherever possible and appropriate during operations.

2.4 Packaging Material

The Group's business did not involve any use of packaging materials. Hence, no policy has been established and no data is available.

The Group will continue to identify and address any potential environmental risk, and will promptly take measures to improve our level of energy consumption.

3. Environmental Protection and Natural Resources Conservation

General Disclosures and KPIs

The Group is highly aware of adverse impact on the environment and natural resources, and thus taking steps to minimize those negative footprints by Heat Supply and Construction, Maintenance and Design Services' operations. In addition to compliance with the laws and regulations including "Energy Conservation Law of the PRC" 《中華人民共和國節約能源法》, "Electric Power Law of the PRC" 《中華人民共和國電力法》, "Law of the PRC on the Prevention and Control of Environmental Noise Pollution" 《中華人民共和國環境噪聲污染防治法》 and "Noise Limits at the Boundary of Construction Sites" 《建築施工場界環境噪聲排放標準》, the Group has integrated the concept of environmental protection into its internal management and daily operation with an objective of achieving environmental sustainability.

3.1. Prevention Measures

The Group always awards energy saving and low carbon as an unremitting work. During the Reporting Period, the Group adopted a series of management measures and established a long-term mechanism to further supplement and improve system for managing energy conservation, focus on the source, details and process of energy saving and achieve the goal of energy saving and emissions reduction. Meanwhile, in line with the Group's training scheme, it has further put in efforts to promote reduction and had the cultural concept of energy saving and emissions reduction deeply rooted in people's hearts.

Heat Supply

The Group adopts a smart heating network system, which allows us to conduct our heat supply business precisely and efficiently. The Group ensures that when purchasing new equipment, using new technologies, and undertaking technologically innovative projects, priority is given to new energy saving technologies, processes, equipment and materials. In particular, energy-saving products that are recommended by the PRC or internationally recognized bodies shall have first preference.

Construction, Maintenance and Design Services

The Group endeavors to calculate the number of materials needed for our production based on the principle of minimizing surplus materials. In addition, the Group has put in place a scrap metal recycling mechanism to sell the wasted steel produced in our process of production to recycling companies.

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3.2 Noise Management

The Group strengthened the “Noise Control Measures” 《噪聲管理規定》 for vehicles, maintenance of machinery and equipment and other construction of projects in accordance with the internal guidelines “Noise Management” to reduce environmental pollution caused by noise. The responsible departments under each subsidiary manage and supervise the noise during business operations.

The Group's operation does not cause any significant impacts on the environment. During the Reporting Period, the Group did not receive any complaints from the surrounding community regarding air pollution, noise, or light pollution.

III. SOCIETY

Major Scope & Aspects

The Group makes an effort to provide a safe working environment for the employees and to care for the overall wellbeing of the employees. In relation to employment and labour practices, the human resources department focuses on employment, health, safety, development and training. The Group complies with laws and regulations on compensation and dismissal, recruitment and promotion, working hours, rest period, equal opportunity and other benefits as well as anti-discrimination law.

1. Employment and Labour Practices

General Disclosure

The Group strictly follows the relevant laws and regulations. The Group determines salaries on the principle of fairness and ensures that wages are no lower than the minimum wage in accordance with the “Measures for Employees’ Wage Management” 《勞動工資管理辦法》. Wages in related markets are also referenced, so that the Group can provide attractive compensation. The Group offers a variety of allowances to qualified employees, and provides staff members with retirement protection plans, as stipulated by law and regulations. The Group welcomes diversity in its staff members. Regardless of ethnicity, religion, gender or age, all people receive equal employment opportunity in such matters as recruitment, development, promotion and training.

During the Reporting Period, the Group had 1,686 full-time employees, 1,458 employees of whom worked for the business segment of Heat Supply including 952 of whom for the Company, 82 of whom for Xixing Energy and 424 of whom for Yatai Heating; moreover, 228 employees of whom for Construction Maintenance and Design Services including 67 employees of whom for Changre Pipelines 《吉林省長熱管網輸送有限公司》, 55 employees of whom for Changchun Runfeng 《長春市潤鋒建築安裝工程有限責任公司》, 44 employees of whom for Changre Maintenance 《吉林省長熱維修實業有限公司》, 33 employees of whom for Heating Engineering Design 《吉林省熱力工程設計研究有限責任公司》, 27 employees of whom for Changre Electrical Apparatus 《吉林省長熱電氣儀錶有限公司》 and 2 employees of whom for Biomass Power 《吉林省春城生物質能源有限公司》. 14 employees left due to personal reasons. The employee turnover rate is around 1% of which the turnover rate of male and female employees is 0.8% and 1% respectively. Each employee of the Group obtains opportunities through the “Supervisor and Talent Evaluation Mechanism” 《管理層及人才評定機制》, which is classified and managed in the talent pool. The Board can then appoint to suitable positions based on their duties and work experience.

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The Group has participated in welfare schemes concerning pension insurance, unemployment insurance, maternity insurance, occupational injury insurance and medical insurance in accordance with the regulations including “Labour Law of the PRC” 《中華人民共和國勞動法》、 “Labour Contract Law of the PRC” 《中華人民共和國勞動合同法》 and “Social Insurance Law of the PRC” 《中華人民共和國社會保險法》.

Employee Relations

To help strengthening the corporate culture and sustainable development, the trade union as the party's bridge links the party with workers and implements “people-oriented” concept. In addition to comprehensive employee benefits, the trade union organizes a wide range of leisure activities with the aim of cultivating a cozy atmosphere, showing care for its employees and fostering work-life balance among the staff. These can also be further enhanced the cohesion and centripetal force of employees. Relevant benefits and activities are as follows:

- Distributing holiday condolences to employees during Spring Festival, Dragon Boat Festival, Mid-Autumn Festival, International Women's Day and other festivals;
- Providing condolence money from the trade union to employees who are sick and hospitalized, and whose immediate family have died;
- Holding various cultural and sports activities, such as “celebrating Happy Chinese New Year activity”, “scholarly activity on 8th March”, “singer competition”, “professional skill competition”, and “gold idea event” etc.

Equal Opportunity

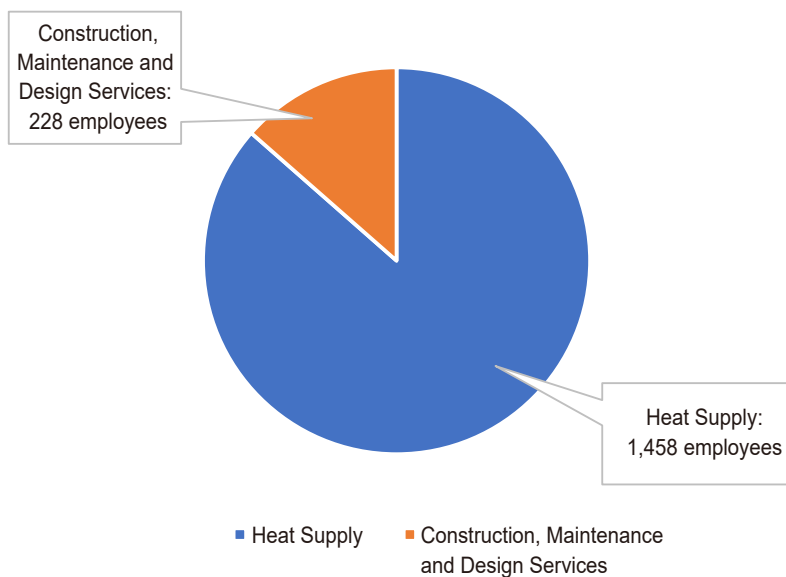
The human resources department conducts a comprehensive recruitment review to ensure that the data provided by the candidates are accurate. The Group's recruitment and promotion process are carried out in a fair and open manner for all employees; employees are recognized and rewarded by their contribution, work performance and skills, and outcomes will not be affected by any discrimination on the grounds of age, gender, physical or mental health status, marital status, family status, race, skin color, nationality, religion, political affiliation and sexual orientation and other factors.

During the Reporting Period, the Group did not identify any major non-compliance with laws and regulations in relation to the employment practices.

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The charts below set out the employees of each business segment of the Group during the Reporting Period:

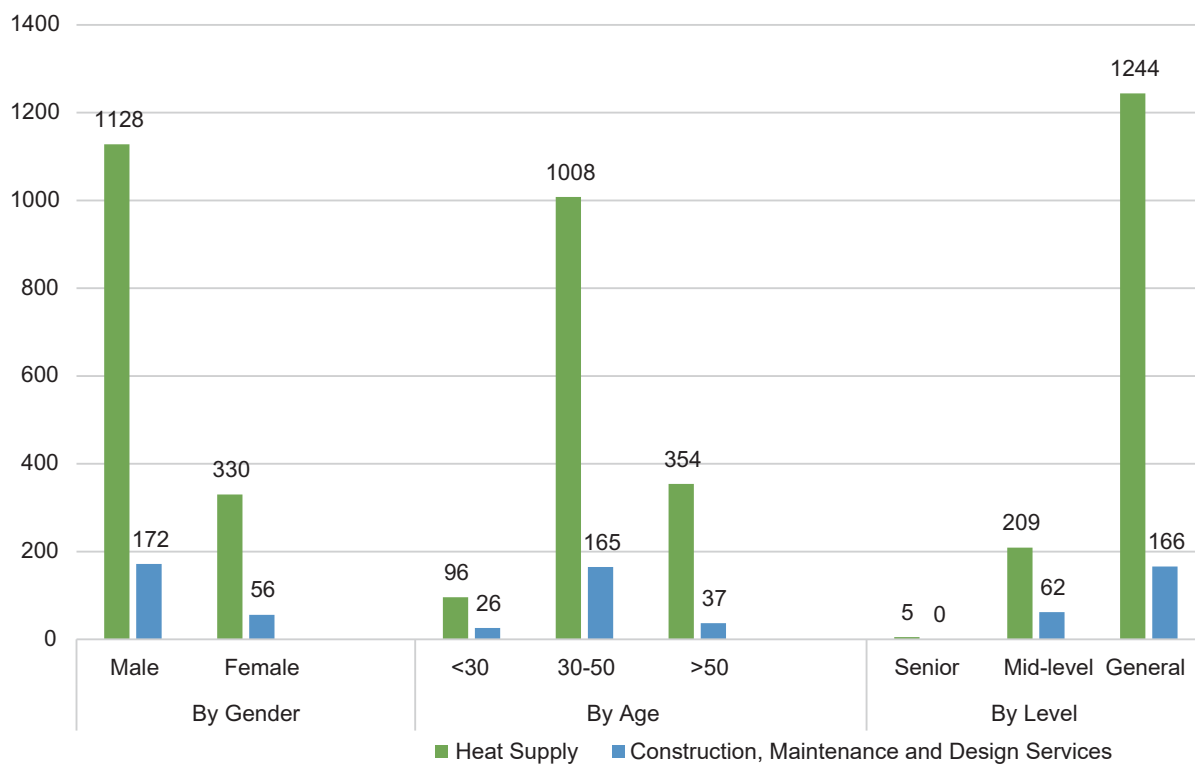
Number of employees by business segment



Total: 1,686 employees (Year 2020)

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Number of employees by categories of business segment



Note:

1. The category of senior employees of the Group are director grade.
2. The category of middle-level employees of the Group includes all ranks of administrators, managers and supervisors;
3. The category of general level of the group includes employees of other ranks; and
4. This classification for job level is also used on the employees' training hours and percentages of the Group in this Report.

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2. Health and Safety

General Disclosure

The Group puts particular emphasis on health and safety and attaches great importance to health protection and a safe working environment as it firmly upholds the principle of “safety first and prevention prevails (安全第一、預防為主)”. The security response department maintains the risk management system including identification, prevention and management of risks and hazards throughout the workplaces as well as follow-up actions for accidents or personal injuries. We have taken the following measures:

- Installing air purifiers in relatively crowded areas such as conference and meeting rooms;
- Prohibiting smoking and abuse of alcohol and drugs in the workplace;
- Providing clean and tidy rest area such as corridors and pantry;
- Providing adjustable chairs and monitors for eye protection;
- Setting up posters of proper working postures and lifting method accessible on the intranet and at appropriate locations in corporate offices;
- Conducting fire drills and emergency evacuation simulations to raise the employees’ awareness of fire prevention and to equip employees with appropriate knowledge and skills in the event of emergency; and
- Improving the fire evacuation plans by providing first aid kits and fire extinguishers in workplace in response to emergencies.

Prevention and Control Measures for the Epidemic

In 2020, during the outbreak of coronavirus epidemic, the Group fully demonstrated the responsibility of state-owned enterprises through providing services for people and maintaining social stability. For Heat Supply, each department set up special taskforce to ensure stabilization of heating service for each sector. Moreover, in accordance with notices issued by the “Changchun New Coronary Pneumonia Epidemic Prevention and Control Work Team (長春新冠病毒疫情防控工作領導小組)”, the Group strictly implemented the prevention and control of the hygiene for employees, including urging and guiding all departments to strengthen employee health management, well promoting and educating associated safeguard measures, and timely distributing epidemic prevention materials to on-site staffs. The Group ensures physical health of employees and a safe workplace to prevent disruption to all operations.

During the Reporting Period, the Group complied with “Work Safety Law of the PRC” 《中華人民共和國安全生產法》 and “Regulations of Chuncheng on Safe Production” 《長春市安全生產條例》, by ensuring that the employees are working in a safe environment; as well as providing induction programs and safety training programs to new employees such that they can be familiar with our corporate policies in relation to health and safety matters as quickly as they can.

During the Reporting period, the Group did not encounter any severe injuries or casualties, while 1 employee encountered work related injury (more than 7 consecutive days). The Group did not record any accidents that resulted in death or serious bodily injury, did not pay any reimbursements or compensations to the Group’s employees due to such accidents, and was not aware of any major violations against laws and regulations related to employees’ health and safety.

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3. Development and Training

General Disclosure

Talent development is an important part of the Group's strategy for managing human resources. Being closely related to corporate sustainable development, training can enhance the overall quality of staff members, and this enables them to adapt to new job requirements, as well as improve their capabilities to perform their current duties.

The Group strives to raising the safety awareness of its employees through promotion on bulletin boards and posting of safety signs. More importantly, the Group has also established safety training and education system. Occupational health and safety training courses are conducted regularly to the employees, training topics include general occupational health and safety education, correct usage of personal protective equipment etc. In addition, the certificate of competency is required for professional positions, such as boiler workers, electrical engineers, and welders must be trained by relevant departments and pass the examination before they can take up the job. The mental well-being of employees has been valuable assets for the Group, and the Group has alleviated employees' working pressure through arrangement of various activities such as mental well-being courses and group sharing.

The table below sets out the employees' training hours and percentages of the Group during the Reporting Period:

Indicators	Heat Supply		Construction, Maintenance and Design Services	
	Hours	Percentage (%)	Hours	Percentage (%)
Total no. of training hours received/rate of employee trained	98 ²	61%	502 ²	>100%
Average no. of training hours per employee/rate of employees trained by level				
Senior ¹	—	—	—	—
Middle-level	25	5%	115	29%
General	73	56%	387	95%
Average no. of training hours per employee/rate of employees trained by gender				
Male	55	57%	290	83%
Female	43	4%	212	41%

Note:

1. The senior employees of the Group were not assigned to participate in training, but they attended on the whole training contents; and
2. The training distribution hours were collected from the Company and 8 subsidiaries.

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Photos album (Trainings)



Furthermore, the Group encourages and supports employees to participate in personal and professional trainings in response to the relevant evolving market needs, such as changes in laws and regulations, market trends, product trends and customer behaviours. Based on the needs of individual employees, we also provide education allowances to facilitate improvement of their job skills and encourage them to maintain the non-stop learning spirit.

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4. Labour Standards

General Disclosure

Being fully aware that exploitation of child and forced labour violate human rights and international labour conventions, the Group strictly prohibits the employment of any child labour and forced labour. New employees are required to provide true and accurate personal data when they are onboard. Recruiters should strictly review the entry documents including medical examination certificates, academic certificates and identity cards. The Group constantly rejects to engage suppliers and contractors, that hire child labour or forced labour in their operations, to provide administrative supplies and services.

The Group strictly complies with the relevant laws and regulations, including the “Labour Law of the PRC” 《中華人民共和國勞動法》, “Protection of Minors and the Prohibition of Using Child Labour of the PRC” 《中華人民共和國未成年人保護法》 and 《禁止使用童工規定》.

During the Reporting Period, no material non-compliance with the laws and regulations related to the prevention of child labour or forced labour have been found by the Group.

5. Supply Chain Management Mechanism

General Disclosure

The Group believes the value in ethics, honesty and integrity, operating in compliance with applicable laws and regulations. The Group encourages its business partners to adopt the best environmental and social practices and to disseminate the pursuit of sustainability into the core business. The Group collaborates closely with the business partners through an improved market management and centralized procurement system. Advanced technology is also widely utilized in all operations to monitor all purchases and sales transactions. All the processes for procurement, price control, resource management are carefully monitored and documented. In order to guarantee the safety of our products and services, every single purchase is registered with the authority before being put to use and sale.

In addition to purchasing products and services according to the Group's specified standards of “Administrative Measures on Suppliers” 《供應商管理辦法》 etc., the Group has developed a contractor and supplier selection mechanism in which it requires the potential contractors or suppliers to comply with all the applicable laws and regulations and confirm their compliance with safety, environment, and social aspects. Inspection and assessments may be conducted by the Group if deemed necessary. To maintain a good corporate control and governance, the Group has developed a series of management system as and procedures in alignment with the Corporate Governance required by the Stock Exchange. The Group is obliged to terminate the cooperation contract with suppliers that may cause or have caused serious pollution or serious social accidents.

During the Reporting Period, the total number of contractors and suppliers were 738, in which 194 from the business segment of Heat Supply and 544 from Construction Maintenance and Design Services. The Group continues to promote the localization of contractors and suppliers and all of the Group's contractors and suppliers are from the PRC. Under the same terms and conditions, we prioritize a mutually beneficial partnership with local contractors and suppliers. With the application of scientific technology in logistic management, we are committed to shortening material delivery time, while controlling warehouse storage and delivery pressure, reducing vehicle emissions and negative impact on the environment.

The Group believes that through the above review process, we can minimize the potential environmental and social risks associated with the supply chain management.

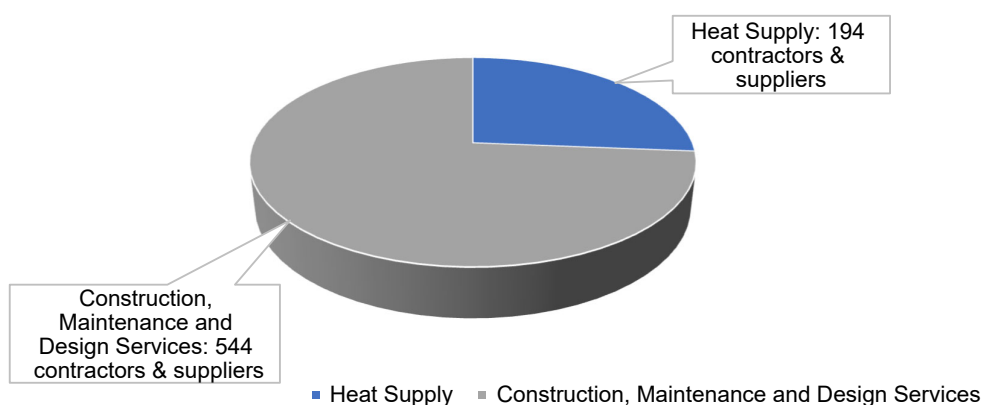
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Fair and Open Procurement

The Group's procurement process strictly implements the "Bidding Law of the PRC" 《中華人民共和國招標投標法》 and is conducted in an open, fair and impartial manner. The Group does not discriminate against any contractors, suppliers, and employees and other individuals who have an interest in the relevant suppliers will not be allowed to participate in related procurement activities.

The chart below sets out the contractors and suppliers of each business segment of the Group during the Reporting Period:

Number of contractors & suppliers by business segment



6. Product Responsibility

General Disclosure

As a leading business in heating industry, the Group keeps good communication with its customers to ensure that it understands and fulfils their needs and expectations, so that the Group can improve the quality of our services in the long run. The Group is committed to "optimizing heating business (優化供熱業務)", the highest standards of services we deliver.

During the Reporting Period, the total number of customers was 505,945 in which 505,788 from the business segment of Heat Supply and 157 from Construction Maintenance and Design Services. The Group has established stringent processes and systems to ensure that all products and services comply with all the relevant laws and regulations, as well as internal rules including but not limited to the company policy of "Intangible Access Management" 《無形資產管理制度》、"Consumer Protection Law of the PRC" 《中華人民共和國消費者權益保護法》, "Advertising Law of the PRC" 《中華人民共和國廣告法》 and "Product Quality Law of the PRC" 《中華人民共和國產品品質法》, by ensuring that there are no false and misleading messages in our advertisements and promotion activities.

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IPR protection

To facilitate the implementation of the “13th Five-Year” National Science and Technology Innovation Plan” 《“十三五”國家科技創新規劃》, the Group continuously contributes to the investment in technological innovation. With the efforts of the technical team, there were a total of 20 patents issued by the State Intellectual Property Office including invention patents, utility model patents, appearance patents, as well as a total of 63 computer software copyright licenses by the National Copyright Administration during the Reporting Period. Therefore, the Group attaches much importance to the protection of intellectual property rights (IPR), including protection of patents, trademarks and copyrights. It has formulated policies and systems of IPR protection, and continuously improved innovation capability, and took into account factors such as core service content of heat supply business and the importance of IPR projects, so as to prevent IPR risks and enhance IPR protection.

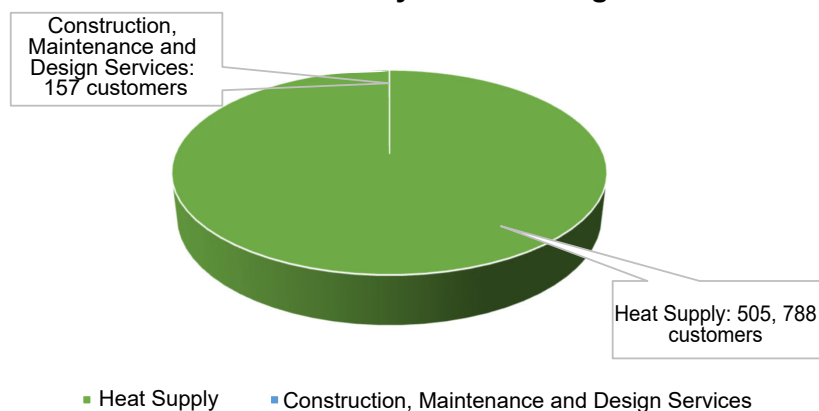
Feedback Management

The Group has set up various complaints and feedback channels, such as telephone hotline, WeChat, emails and websites, to collect suggestions and advice from customers. For Heat Supply business, the Group adopted the innovative service method “Internet Plus (互聯網+)” to improve the quality of heating services. It can immediately and widely receive customers’ feedback and suggestions in order to solve as many as actual heating problems for them. The business has actively established 886 groups of heating community management, which can release instant heating information and fulfill customers’ demands online. The customer data protection and privacy is followed to company policy of the “Customer Management” 《客戶管理制度》.

During the Reporting Period, the Group was not aware of any major violations against laws and rules that were related to the health and safety, advertisements, labels, privacy and remedial measures for or of the products and services it offered and that had material impacts on the Group.

The chart below sets out the customers of each business segment of the Group during the Reporting Period:

Number of customers by business segment



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7. Anti-corruption Mechanism

General Disclosure

Ethics and integrity are the cornerstones of the Group's success. The Group adopts a zero-tolerance approach to bribery, extortion, fraud and money-laundering. All Directors, management personnel and staff members must comply with all relevant national and local laws and regulations on preventing bribery, extortion, fraud and money-laundering in regions and areas where they operate businesses, such as "Criminal Law of the PRC" 《中華人民共和國刑法》 and "Punishing corruption and regulations of the PRC" 《中華人民共和國懲治貪污條例》. All employees not only have responsibility to understand and comply with above policies on preventing bribery, extortion, fraud and money-laundering, but also have an obligation to report violation to the senior management of the Group. Any person who contravenes the regulations will be reported to the authorities.

In order to strengthen the anti-corruption measures, the Board has delegated a team to carry out anticorruption measures, commence special issues auditing and supervision processes in due course, investigate loopholes and rectify faults, and review the legality, reasonableness of practices and stringency of implementing anti-corruption measures in respective businesses. The management of each subsidiary of the Group also dedicates itself to promoting an anti-corruption culture and carrying out the anti-corruption measures. The Group establishes and improves various internal systems to specify the anti-corruption management disciplines and conduct requirements of the Company, so that corruption can be eliminated with the help of an established system and better management approach.

Meanwhile, the Group participates in anti-corruption training, campaigns to educate the public on how to comply with law and case analysis so as to promote the importance of anti-corruption practices. The Group sets up various channels such as telephone hotlines, an email address and mailbox for whistleblowing. Dedicated staff members collect and sort reported information on a regular basis, as well as oversee and investigate reported matters referred to the audit department. The Group also adopts various measures to encourage staff members to proactively report acts of violation of rules and regulations, and strengthens the privacy protection of the whistleblower.

During the Reporting Period, the Group was not aware of any corruption litigation cases against the Group or its staff members.

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8. Community Investment

General Disclosure

The Group promotes the social contribution of all members. It attaches great importance to inspire a sense of social responsibility in employees and encourage them to make greater contribution to our community both at work and in their spare time.

Community activities

1. When the epidemic situation caused the city's blood inventory to fail to meet clinical blood demand, the Group actively responded to the call for unpaid blood donation, made overall arrangements, and organized and carried out unpaid blood donation activities. From 3rd to 18th March 2020, a total of 211 employees successfully donated blood, with a total of more than 63,000 ml of blood donated. Among these employees were party members and cadres, as well as the masses; some of them are young people who donated blood for the first time, and elderly employees who donated blood many times for free. They used their blood to convey love and practical actions to help fighting the epidemic together, which fully explained the responsibility and love of the selfless dedication of the Chun Cheng Heating people.
2. On 7th March 2020, the Sub-Branch Party of the Maintenance Industry (維修實業黨支部) arranged the Secretary of the Yongji Community (永吉社區) to visit the home of the difficult user Liu Tong (劉瞳). Comrade Tian Ruifeng (田瑞峰同志), the Secretary of the Sub- Branch Party of the Maintenance Industry, delivered greetings and care with cash RMB8,800 and fruit on behalf of the Company's leadership team and all staff of the Group.

Photos album (Community activities)



Looking ahead, the Group will continue to focus on community services, motivate employees to actively participate in volunteer services in the future. The Group strives to increase our social investment to create a better environment for our community as well as our business.

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IV. CONCLUSION

The Group has conducted the ESG reporting in accordance with the ESG Reporting Guide. All the ESG information available for the Reporting Period are obtained ESG “Key Performance Indicators” information through the Group “Operational Control Mechanism” 《營運控制機制》. The Group is evaluating its policies on and procedures for management, as well as the measurement and monitoring of the progress that it makes in its strategy for sustainability. The Group will continue to expand the scope of disclosure and strive to improve its regular ESG reporting in the future.

V. ESG GUIDE CONTENT INDEX OF THE STOCK EXCHANGE

Aspects, General Disclosures and KPIs	Description	Relevant Pages In The Report & Remark
A	Environment	P 5-14
Aspect A1	Emissions	P 6-10
KPI A1.1	Types of emissions and respective emissions data	P 6-9
KPI A1.2	Greenhouse gas emissions in total and, where appropriate, intensity	P 9
KPI A1.3	Total hazardous waste produced and, where appropriate, intensity	Not applicable to the Group's core operation.
KPI A1.4	Total non-hazardous waste produced and intensity	P 10
KPI A1.5	Description of measures to mitigate emissions and results achieved	P 7,8
KPI A1.6	Description of how hazardous and non-hazardous waste are handled, reduction initiatives and results achieved	P 10
Aspect A2	Use of Resources	P 11-13
KPI A2.1	Direct and/or indirect energy consumption by type in total and intensity	P 11
KPI A2.2	Water consumption in total and intensity	P 12
KPI A2.3	Description of energy use efficiency initiatives and results achieved	P 11-12
KPI A2.4	Description of whether there is any issue in sourcing water, water efficiency initiatives and results achieved	P 12
KPI A2.5	Total packaging material used for finished products, and if applicable, with reference to per unit produced	Not applicable to the Group's core operation.
Aspect A3	The Environment and Natural Resources	P 13-14
KPI A3.1	Description of the significant impacts of activities on the environment and natural resources and actions taken to manage them	No significant impacts of activities on the environment and natural resources during the Reporting Period.

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V. ESG GUIDE CONTENT INDEX OF THE STOCK EXCHANGE (CONT'D)

Aspects, General Disclosures and KPIs	Description	Relevant Pages In The Report & Remark
B	Society	P 14-25
Aspect B1	Employment	P 14-17
KPI B1.1	Total workforce by gender, employment type, age group and geographical region	P 16-17
KPI B1.2	Employee turnover rate by gender, age group and geographical region	P 14
Aspect B2	Health and Safety	P 18
KPI B2.1	Number and rate of work-related fatalities	No work-related fatalities during the Reporting Period.
KPI B2.2	Lost days due to work injure	P 18
KPI B2.3	Description of occupational health and safety measures adopted, how they are implemented and monitored	P 18
Aspect B3	Development and Training	P 19-20
KPI B3.1	The percentage of employees trained by gender and employee category	P 19
KPI B3.2	The average training hours completed per employee by gender and employee category	P 19
Aspect B4	Labour Standards	P 21
KPI B4.1	Description of measures to review employment practices to avoid child and forced labour	P 21
KPI B4.2	Description of steps taken to eliminate such practices when discovered	No child and forced labour was discovered during the Reporting Period.
Aspect B5	Supply Chain Management	P 21-22
KPI B5.1	Number of suppliers by geographical region	P 22
KPI B5.2	Description of practices relating to engaging suppliers, number of suppliers where the practices are being implemented, how they are implemented and monitored	P 21

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V. ESG GUIDE CONTENT INDEX OF THE STOCK EXCHANGE (CONT'D)

Aspects, General Disclosures and KPIs	Description	Relevant Pages In The Report & Remark
Aspect B6	Product Responsibility	P 22-23
KPI B6.1	Percentage of total products sold or shipped subject to recalls for safety and health reasons	Not applicable to the Group's core operation.
KPI B6.2	Number of products and service-related complaints received and how they are dealt with	No products and service-related complaints received during the Reporting Period.
KPI B6.3	Description of practices relating to observing and protecting intellectual property rights	P 23
KPI B6.4	Description of quality assurance process and recall procedures	Not applicable to the Group's core operation.
KPI B6.5	Description of consumer data protection and privacy policies, how they are implemented and monitored	P 23
Aspect B7	Anti-corruption	P 24
KPI 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	No concluded legal cases regarding corrupt practices during the Reporting Period.
KPI B7.2	Description of preventive measures and whistle — blowing procedures, how they are implemented and monitored	P 24
Aspect B8	Community Investment	P 25
KPI B8.1	Focus areas of contribution	P 25
KPI B8.2	Resources contributed to the focus areas	P 25