

### GUANGDONG INVESTMENT LIMITED (粤海投資有限公司)

Stock Code : 00270





### CONTENTS

01	About the Report Scope of the Report Contact Information	4
	Scope of the Report	4
	Contact Information	5

02	About GDI	6			
	Company Profile				
	Introduction of Business	7			
	Segments				
	Corporate Strategy	10			
	Corporate Governance	10			

### 03 Sustainable Development 12 Management

Sustainable Development	12
Strategy	
ESG Governance Structure	13
Stakeholder Engagement	14
Process	
ESG Materiality Assessment	16

2020 Performance

Highlights



### **CONTENTS (CONTINUED)**

 $\mathbf{O}$ 

5	Core Sustainability Issues	20
	5.1 Addressing Climate	20
	Change	
	Climate Change	21
	Governance	
	Climate Change Strategy	21
	Climate Change Risk and	21
	Opportunity Identification,	
	Analysis and Management	
	5.2 Accelerating Low-	30
	carbon Development	
	Water Resources Segment	30
	Energy Projects	34
	Other Business Segments	35
	5.3 Strengthening Water	38
	Management	
	Systematic Management	38
	Technological Application	39
	Guarantee	
	Conscious Water	40
	Consumption	
	Raising Water-saving	40
	Awareness	
	5.4 Advancing Technology	42
	and Product Quality	
	Water Resources Segment	42
	Other Business Segments	46

5.5 Conserving Biodiversity		
and Ecosystem		
Ecological Conservation	52	
Principles		
Responsible Cooperation	52	
with Government		
Ecological Assessment and	53	
Remediation		
Joint Research and	55	
Development		



### **CONTENTS (CONTINUED)**

06	Our Performance	56		
	on Sustainable			
	Development	56		
	Business Ethics and			
	Integrity Standards			
	Operating with Integrity	57		
	and Combating Corruption			
	Whistle-Blowing Mechanisn	n 60		
	and Protection			
	6.2 Embracing and	62		
	Preserving the			
	Environment			
	Environmental Managemen	t 62		
	System			
	Emission Control and	65		
	Reduction			
	Sustainable Consumption	70		
	of Resources			
	6.3 Prioritising Health and	73		
	Safety			
	Safety Management System	74		
	Production Safety	80		
	Enhancement			
	Emergency Response	84		
	Mechanisms			

6.4 Building Cohesive	90
Workforce	
Focusing on Staff	91
Development	
Equal Opportunities and	95
Labour Rights	
Staff Caring Activities	98
6.5 Giving Back to Society	104
and Creating Value	
Together	
Pandemic Prevention and	104
Control	
Supply Chain Management	108
Engagement in Community	111
Building	

07 Awards and Honours 116

**08** Appendix: Content Index 122 for ESG Reporting Guide of the Stock Exchange

### **ABOUT THE REPORT**

Guangdong Investment Limited ("GDI" or the "Company", together with its subsidiaries, collectively referred to as the "Group", "we" or "us") is pleased to present its Environmental, Social and Governance Report for the year 2020 (the "Report") to shareholders. The Group engaged an independent third-party adviser and prepared and compiled the Report in accordance with the Environmental, Social and Governance Reporting Guide (the "ESG Reporting Guide") contained in Appendix 27 to the Rules Governing the Listing of Securities on The Stock Exchange of Hong Kong Limited (the "Listing Rules").

The Report complies with the four principles of materiality, quantitative, balance and consistency as contained in the ESG Reporting Guide. Apart from disclosing the "comply or explain" matters set out in the ESG Reporting Guide, the contents of the Report are also determined with reference to the materiality and relevance of sustainability issues to the Group and stakeholders. For details, please refer to the section "Sustainable Development Management" in the Report. In addition, we will continue to strengthen our information collection process and improve our future sustainable development performance and disclosure with reference to the Group's capital market rating.

### **SCOPE OF THE REPORT**

The Report presents the Group's vision of and commitment to sustainable development and showcases the Group's significant progress and achievements in environmental, social and governance aspects from 1 January 2020 to 31 December 2020 by setting out the sustainable development concepts of the Group's six business segments, including water resources, property investment and development, department store operations, hotel ownership, operation and management, energy projects as well as road and bridge operation.

Always bearing the environment and stakeholders in mind, the Group focuses on long-term and sustainable business development, proactively makes positive contribution and sets directions for management and improvement in respect of issues such as high efficiency and integrity, efficient water supply, green operation, climate risk prevention and control, ecosystem protection, assurance of product quality and safety, safe working environment and community investment.

In addition, Guangdong Land Holdings Limited (stock code: 00124), a listed subsidiary directly held by GDI, also published separate report in accordance with the ESG Reporting Guide. Its performance on sustainable development is detailed in the 2020 Environmental, Social and Governance Report of Guangdong Land Holdings Limited (available for download at http://www.gdland.com.hk/en/).



### **CONTACT INFORMATION**

Should you have any query or feedback on the Report and its contents, please feel free to contact us at:

Address: 28th and 29th Floors, Guangdong Investment Tower, 148 Connaught Road Central, Hong Kong

Tel: (852) 2860 4368 Fax: (852) 2528 4386 Email: ir@gdi.com.hk Official website: www.gdi.com.hk

### **ABOUT GDI**

#### **COMPANY PROFILE**

GDI, formerly known as Union Globe Development Limited ("Union Globe"), was listed on the stock market in Hong Kong in 1973 (stock code on the Main Board: 00270). In January 1987, an enterprise owned by the Guangdong provincial government acquired a majority stake in Union Globe and changed its name to Guangdong Investment Limited in July 1988. Currently, GDI is a constituent stock of the Hang Seng China (Hong Kong-listed) 100 Index, the Hang Seng China-Affiliated Corporations Index, the Hang Seng Composite ndex and the Hang Seng Composite Industry Index – Utilities.

As at the date of publication of the Report, GDI's ultimate controlling shareholder, 廣 東粤海控股集團有限公司(Guangdong Holdings Limited<sup>▲</sup>, "Guangdong Holdings"), holds approximately 56.49% shareholding interest in the Company through its wholly-owned subsidiary, GDH Limited ("GDH"). Guangdong Holdings is a wholly state-owned provincial investment holding company under the supervision of the State-owned Assets Supervision and Administration Commission of the People's Government of Guangdong Province.

As at 31 December 2020, GDI recorded a total market capitalisation of approximately HK\$91,270 million, employed a total of 7,856 employees and had approximately 170 whollyowned and controlling subsidiaries. It directly holds approximately 73.82% shareholding interest in Guangdong Land Holdings Limited, a company listed on The Stock Exchange of Hong Kong Limited (the "Stock Exchange") (stock code: 00124).

The English name of the entity marked with a "^" is a translation of its Chinese name, and is included herein and in other sections of this report for identification purposes only. In case of any inconsistency, the Chinese name shall prevail.

### **INTRODUCTION OF BUSINESS SEGMENTS**

The Group operates its businesses in the Mainland China, Hong Kong and Macau and its core businesses comprise the following six business segments:



### WATER RESOURCES

The Group's water resources segment, including Guangdong Yue Gang Water Supply Company Ltd. ("Yue Gang Water Supply") and Guangdong Water Holdings Limited ("Water Holdings", formerly known as Guangdong Water Group (H.K.) Limited), contributed 56.06% of the Group's revenue in 2020. This segment's businesses mainly include untreated water supply, tap water supply, sewage treatment and waterworks construction, which are operated by approximately 110 subsidiaries and associated companies, with a customer base exceeding tens of millions in Hong Kong and a number of provinces in Mainland China. In particular, Dongshen Water Supply Project, with a designed annual water supply capacity of 2,423 million tons, supplied an aggregate of 2,205 million tons of water to Hong Kong, Shenzhen and Dongguan during the reporting period (2019: 2,071 million tons), which represented an increase of 6.5%. Aside from Dongshen Water Supply Project, the Group's water resources projects in Mainland China are mostly located in Southern China and Eastern China. During the reporting period, for the Group's other water resources projects, the total designed water supply capacity of the water supply plants and the total designed sewage processing capacity of the sewage treatment plants were 12,412,000 tons per day (2019: 9,003,000 tons per day) and 1,739,200 tons per day (2019: 1,331,000 tons per day) respectively.

### 2. ABOUT GDI (CONTINUED)

### PROPERTY INVESTMENT AND DEVELOPMENT

The Group' s property investment and development segment contributed 30.54% of the Group's revenue in 2020. The Group is engaged in property investment and development business in Hong Kong, Guangzhou, Shenzhen, Tianjin, Panyu, Jiangmen, Zhuhai, Foshan and Zhongshan. The Group headquartered at Guangdong Investment Tower, Connaught Road Central, Hong Kong, with a total gross floor area ("GFA") of approximately 18,956  $m^2$  attributable to the Group. The other properties held by the Group mainly include Teem Plaza, Tianjin Teem Shopping Mall and GDH Plaza (formerly known as Panyu Wanbo CBD Project). In particular, Teem Plaza comprises a shopping mall, an office building and a hotel. Favourably located in the prime area of Guangzhou, Teem Plaza covers a total GFA and lettable area of approximately 160,000 m<sup>2</sup> and 106,000 m<sup>2</sup>, respectively. Situated at a convenient location above underground railroads and opened in June 2017, Tianjin Teem Shopping Mall stands as one of the leading shopping and leisure destinations in the renowned "Binjiang Dao - Heping Road" Commercial District in Tianjin, with a total GFA and lettable area of approximately 205,000 m<sup>2</sup> and 145,000 m<sup>2</sup> respectively.





### DEPARTMENT STORE OPERATION

The Group's two subsidiaries, namely 廣東粵海天河城百貨有限公司 (GDH Teem Department Store Co.,Ltd.<sup>▲</sup>) (name subsequently changed to 廣東粵 海天河城商業有限公司 (GDH Teem Commercial Co., Ltd.<sup>▲</sup>)) and 廣州市粵 海天河城百貨商業有限公司 (collectively referred to as "Teemall Department Store") are engaged in department store operation, collectively generating 2.24% of the Group's revenue in 2020. As at 31 December 2020, GDH Teem Commercial Co., Ltd. and 廣州市粤海天河城百貨商業有限公司 operated a total of six stores, including Teemall Store, Wan Bo Store, Ming Sheng Store, Ao Ti Store, Dong Pu Store and Nanhai Store with an aggregate leasable area of approximately 125,800 m<sup>2</sup> (2019: 136,000 m<sup>2</sup>).

## HOTEL OWNERSHIP, OPERATION AND MANAGEMENT

As at 31 December 2020, the Group's hotel management team managed a total of 37 hotels (2019: 35 hotels), of which three were located in Hong Kong, one in Macau and 33 in Mainland China, collectively generating 1.33% of the Group's revenue in 2020. Among the Group's five star-rated hotels, four are managed by its hotel management team except the one located in Guangzhou, namely Sheraton Guangzhou Hotel which is managed by Marriott International Group. During the reporting period, due to global travel bans caused by the pandemic, the overall demand for accommodation has declined significantly. The average occupancy rate of Sheraton Guangzhou Hotel was 66.1% (2019: 93.8%) and that of the other four star-rated hotels was 34.2% (2019: 71.7%). In addition, one new star-rated hotel situated in Zhuhai was under construction by the Group.

### ENERGY PROJECTS

The Group's energy business includes the project of 中山粤海能源有限公司 (Zhongshan GDH Energy Co., Ltd.▲) ("Zhongshan Energy") and the project of 廣東粵電靖海發電有限公司 (Guangdong Yudean Jinghai Power Generation Co., Ltd.) ("Yudean Jinghai Power"), collectively generating 5.20% of the Group's revenue in 2020. Zhongshan Energy project has two 300 MW heat and electricity generators with a total installed capacity of 600 MW. Sales of electricity amounted to 2,877 million kWh during the reporting period (2019: 2,693 million kWh), representing an increase of 6.8%. Yudean Jinghai Power project (in which the Group holds a 25% effective interest) has four power generators with a total installed capacity of 3,200 MW. Sales of electricity amounted to 13,214 million kWh during the year (2019: 12,485 million kWh), representing an increase of 5.8%.





### ROAD AND BRIDGE

The Xingliu Expressway Project held by 廣西粤海高速公路有限公司 (Guangxi GDH Highway Co., Ltd.▲) ("GDH Highway") contributed 4.63% of the Group's revenue in 2020. The highway is located in Guangxi Zhuang Autonomous Region and comprises a main line which is approximately 100 km in length and three connection lines (to Xingye, Guigang and Hengxian respectively) with an aggregate length of approximately 53 km. During the reporting period, as affected by the 79 days toll-free period set by the government for prevention and control of the pandemic and the highway enhancement project launched thereafter, the average daily toll traffic flow of the Xingliu Expressway was 14,305 vehicle trips (2019: 24,359 vehicle trips), decreasing by 41.3%. In addition, the Group entered into a cooperation agreement with 東莞市謝 崗鎮人民政府 (Dongguan City Xiegang Town People's Government) for the development of certain A-grade highways, connecting roads and municipal roads (not being toll roads) (the "Project Roads") in 銀瓶創新區 (Yinping Innovation Zone) in Dongguan, Guangdong Province. As at 31 December 2020, out of a total of eight Project Roads, two Project Roads were completed and three Project Roads were under construction.

### 2. ABOUT GDI (CONTINUED)

#### **CORPORATE STRATEGY**

While striving for green operation and sustainable development, the Group remains committed to enhancing the operational development of its existing businesses and expanding its core businesses so as to generate continuous and steady investment returns and create long-term value for shareholders. We will further expand the Group's competitive strengths and influence on the market through measures such as optimising asset portfolio, enhancing capital operation, leveling up management standard and improving corporate governance, with an aim to provide strong support for the enterprise's long-term, steady and sustainable development.

In line with its strategic development plan, the Group will continue with its investments in water resources management, property investment and development as well as infrastructure business in a proactive and prudent manner. The Group will also actively explore investment opportunities in untreated water and urban water supply, sewage treatment and integrated water environment management projects, accelerate the pace of project acquisitions and enhance its capability in developing new business. In addition, it will further expand its core business scale and strength, optimise its asset portfolio and resource allocation, and proactively seek potential development opportunities arising from "The Greater Bay Area Initiative". Meanwhile, we will arouse awareness on ecological environmental protection and biodiversity conservation, both within the organisation and at the community level, to ensure the Group operates in a sustainable manner while balancing our impacts on natural habitats.

Against the backdrop of globalisation, the Group will continue to capitalise on Hong Kong's strength as an international financial centre and a capital raising platform, improve capital utilisation efficiency, strengthen capital management capabilities and foster effective value enhancement of capital. We will also optimise human resources build-up, further improve management expertise and step up its efforts in strengthening corporate culture so as to enhance corporate core competitiveness.

For more information on the business operation and financial position of the Group, please refer to the 2020 Annual Report of the Group, which is available for download at http://www.gdi.com.hk/en\_US/investor-relations/financial-reports.

### **CORPORATE GOVERNANCE**

To be consistent with the needs and requirements of its businesses and the best interest of all its stakeholders, the Group always adheres to the highest standard of corporate governance and has applied the relevant provisions of the Corporate Governance Code contained in Appendix 14 to the Listing Rules so as to ensure the Group's stable and efficient operations.

The Chairman provides leadership to the Board and oversees the overall functioning of the Board. Acting in the best interests of the Group, the Board is responsible for leading the Company's development, establishing its strategic objectives and ensuring that the Group has access to the necessary financial and other resources to achieve its objectives by formulating the Group's overall strategies and policies. It also oversees the work of the Group's management and reviews the business performance of the Group. The Board has established various committees to advise on various aspects of the Group's development and policy planning to ensure sound and effective operation of the Group. The Nomination Committee is responsible for identifying candidates for directorship and considering appointment and succession planning, while the Remuneration Committee assists in determining the Group's risk assessment, control and management processes and conducts a detailed review of the risk management and internal control systems annually to ensure their effectiveness. The Environmental, Social and Governance Committee is responsible for the Board on the implementation and effectiveness of ESG management. Please refer to the section "Structure of the ESG Committee" for details.

As at the date of publication of the Report, the Board comprises five executive directors, three non-executive directors and five independent non-executive directors. The Group has received confirmation of independence from the independent non-executive directors, and assessed and confirmed the independence of all the independent non-executive directors. Meanwhile, the Group recognised that they all have a wealth of experience in diverse fields and possess the upright character and considered that they can make valuable contributions to the Board and the Company by offering independent and constructive advice.

In addition, the Company recognises and embraces the benefits of having a diverse Board and perceives increasing diversity at Board level as an essential element in contributing to the attainment of the Company's strategic objectives and sustainable development. All Board appointments are based on meritocracy, taking into consideration its own business model and specific needs from time to time and having due regard to the benefits of diversity on the Board against objective criteria. The Nomination Committee has set the measurable objectives based on five focused areas: gender, age, length of service, professional experience and skills and knowledge for the implementation of board diversity of the Company, and reviews the Board Diversity Policy to ensure its continued effectiveness from time to time.

The following is a breakdown of the members of the Board by nature as at the date of publication of the Report:

Gender	Male : 12	Female : 1	
Age	40-49:4	50-59 : 5	Over 60 : 4
Length of service	Less than 5 years: 6	5-10 years: 3	Over 10 years: 4
Directorship in other listed companies	Nil : 8	2 companies or below : 1	3 companies or above : 4

For more information about the corporate governance of the Company and the work of the Board, please refer to the section "Corporate Governance Report" in the 2020 Annual Report of the Company and the webpages regarding Corporate Governance and Board of Directors on the Company's website (http://www.gdi.com.hk/en\_US/ corporate-governance/corporate-governance-report/).



### SUSTAINABLE DEVELOPMENT MANAGEMENT

### SUSTAINABLE DEVELOPMENT STRATEGY

Societies around the world are experiencing rapid urbanisation. Population growth in cities will bring a host of sustainability challenges to land use planning, natural resource consumption and urban construction and development needs. As a responsible corporate, the Group firmly believes that its operations not only create values for shareholders, but also integrate sustainable development and stakeholder expectations into our business decision-making process by developing and utilising green and sustainable technologies and further contribute to the sustainable development of the Group and the society at large.

GDI solicited the expectations and suggestions on ESG-related issues from its internal and external stakeholders on a regular basis via its regular communication mechanism in conjunction with on-site interviews and online questionnaires. Meanwhile, we also seek to determine material issues relating to sustainable development through stakeholder engagement. This serves as objective and reliable reference for the preparation of annual ESG report and the formulation of our directions and objectives of sustainable development in the future in a bid to respond to stakeholders' expectations on the Group's management and disclosure performance.

We continuously carried out work pertinent to sustainability issues which are highly relevant to the Group in an orderly manner and strengthened management and reviewed the effectiveness of relevant measures, including ensuring stable water supply and compliance with water quality standard, active energy consumption and emission reduction, improvement on product and service quality, and safeguarding the interests of the Group's stakeholders' such as employees, suppliers and community groups. We have also formulated long-term and meaningful goals by supplementing and improving policies related to sustainable development at the Group level and refining the Group's requirements and standards for the business segments and related personnel in the daily operation and sustainable development.

In addition, we actively responded to the challenges brought by climate change to our business operations. Taking objective factors such as characteristics of business segments, market and policy development, climate issues and data into consideration, we identified, analysed and managed the climate change-related risks and opportunities for the water resources and energy projects segments during the reporting period and made meaningful disclosure accordingly. We will further conduct the identification and management practices of climate-related risks and opportunities for four business segments, namely, property investment and development, department store operation, hotel ownership, operation and management as well as road and bridge, with an aim to further enhancing and strengthening the awareness and understanding of climate change and other environmental issues within the Group.

13

### **ESG GOVERNANCE STRUCTURE**

### STRUCTURE OF THE ESG COMMITTEE



Note: As at the date of publication of the Report

### **3. SUSTAINABLE DEVELOPMENT MANAGEMENT (CONTINUED)**

Being the highest decision-making body in the Group's ESG structure, the board of directors of the Company is responsible for the leadership, decision-making and supervision of the Group's ESG performance and relevant resource allocation. The Environmental, Social and Governance Committee (the "ESG Committee") under the Board is composed of the Executive Director in charge of ESG matters, General Counsel and Company Secretary and senior management personnel from all business segments of the Group and is chaired by the Managing Director of the Company. The ESG Committee assumes full responsibility for monitoring, coordinating and evaluating the Group's ESG-related issues and risks, reviews the direction of sustainable development strategies in accordance with relevant laws, regulations and major trends of peers and public opinions and timely reports relevant work to the Board at least once a year. Based on the ESG Committee's report, the Board confirms the results of the Group's ESG materiality analysis and leads the Company to formulate appropriate and effective risk management approach and measures as a whole. The ESG Committee is also responsible for conducting regular reviews of various relevant ESG policies and practices at the Group level. For details, please visit the official website of GDI at http://www.gdi.com.hk/en\_US/corporate-governance/corporate-governance-report/.

The ESG Committee is in charge of establishing the ESG working groups for the subsidiaries of GDI (the "ESG Working Groups") to undertake relevant daily work and coordinating, directing and supervising the responsibilities and work arrangements of the ESG Working Groups. The subsidiaries and their relevant departments are responsible for implementing the ESG work arrangements assigned by the Board, formulating the practical ESG work plans and setting corresponding targets, continuously monitoring the implementation progress and performance, collecting information and data and reporting to the headquarters for communication and coordination, which the ESG Committee will use to coordinate the preparation of the Group's annual ESG report. In addition, the Group requires members of the ESG Working Groups under different segments to sign the "Letter of Undertaking of ESG Information Disclosure" to ensure the credibility of information disclosure.

#### STAKEHOLDER ENGAGEMENT PROCESS

Creating values for consumers, employees, investors and communities at large is the core of GDI's management direction. The Group pays attention to the needs and opinions of all stakeholder groups, which are the drivers for continuous improvement of its services and operational model. We identified stakeholder groups that are crucial to the sustainable development of GDI based on the characteristics of each business segment. We also set corresponding engagement objectives and plans for each stakeholder group, and endeavour to maintain multidimensional, continuous and impartial communication with stakeholders so as to understand their feedback on the ESG issues and integrate such feedback into the Group's management policy and strategic planning for sustainable development. After reviewing our engagement work during the reporting period, we have identified and closely communicated with the following stakeholder groups.

Stakeholders	Engagement Objectives	Primary Engagement Channels
Employees	Understand employees' ESG focuses and views towards the Group Collect employees' recommendations for improving ESG work Enable employees to better understand the Group's work on ESG development	Group and departmental meetings Staff meetings Staff caring activities Questionnaires Internal training Physical meetings of labour union
Consumers	Understand consumers' ESG focuses and views towards the Group Provide products that cater to consumers' needs Offer more dedicated services to consumers Formulate marketing strategies that align with consumer expectations	Corporate media platform Open days Questionnaires
Suppliers, contractors and service providers	Establish long-term rapport Create mutually beneficial partnerships Create an atmosphere of mutual trust and cooperation Jointly address ESG issues	Supplier meetings On-site technological knowledge exchanges and inspections Questionnaires Seminars
Investors, shareholders and analysts	Understand the Company's ESG development and core focuses Demonstrate the directions and focuses of the Group's ESG work Understand the latest interpretations of investors, shareholders and the market about ESG matters and their expectations towards the Company	Annual general meetings Interim and annual reports Results presentations Investor meetings News and announcements Questionnaires
Media	Showcase the highlights of the Group's ESG work Disseminate the core values of the Group's ESG management	News and announcements Corporate media platform Questionnaires
Government departments and regulatory authorities	Showcase the Group's reputation for compliant business operations	Physical meetings with the government Site visits Questionnaires
Local communities	Understand the focuses and trajectories of the Group in shouldering its social responsibility Demonstrate the Group's confidence in creating social value in the places where it operates Enhance mutual trust with local communities and residents in places of operations	Open days Charitable activities Corporate media platform Questionnaires

### **3. SUSTAINABLE DEVELOPMENT MANAGEMENT (CONTINUED)**

### ESG MATERIALITY ASSESSMENT

Based on the ESG Reporting Guide, international standards, sustainable development trends in the industry, the key concerns of capital markets and our business characteristics, we regularly identify or update the ESG issues which have a significant impact on stakeholders and development of the Group's business. In 2019, we invited stakeholders and the Group's senior management personnel to rate for the materiality of 28 sustainability issues in four major areas, namely, environmental responsibility, market performance, corporate governance and social responsibility, so as to generate a quantitative and objective ranking result and develop a materiality matrix for the sustainable development of GDI. As the Group did not have any significant changes in business operations and key stakeholders during the year, we have maintained the above results as the basis and further incorporated the considerations of the key policies, regulatory requirements and market dynamics observed in 2020. In particular, we focused on the updated environmental disclosure requirements in the ESG Reporting Guide, the endeavours in supporting China's goals to cap carbon emissions by 2030 and to be carbon neutral by 2060, and the key stakeholder concerns on the Group in respect of climate change-related risks and opportunities. The ESG Committee revisited the Group's sustainable development direction, updated the materiality matrix for the year and strengthened work planning and disclosure in relation to the four issues, namely, greenhouse gas emissions, energy consumption and energy conservation, climate change and the use of renewable energy. The relevant results have been reviewed by the ESG Committee and approved by the Board. We have also integrated this into the Group's sustainable development strategies, which helps us to enhance our understanding and implementation of our sustainable development vision.



#### GDI Materiality Matrix of ESG Issues in 2020

Materiality to Corporate Development

List of Material ESG Issues of GDI in 2020			
Materiality	No.	Issues	
	10	Compliance with relevant environmental protection regulations	
	23	Reliable products and services	
	21	Anti-corruption	
	16	Protection of labour rights	
	28	Safeguarding intellectual property rights	
	1	Greenhouse gas emissions	
	3	Wastewater treatment and water reuse	
	22	Economic performance	
Very Important Issues	7	Water consumption and conservation	
	15	Healthy and safe working environment and ancillaries	
	5	Energy consumption and conservation	
	27	Customer privacy	
	9	Climate change	
	4	Waste management	
	26	Customer relations	
	24	Technological innovation	
	8	Ecological environment and biodiversity protection	
	19	Responsible and sustainable procurement	
	20	Supply chain management	
	11	Workforce diversity and equal opportunity	
	12	Employee relations	
Important Issues	13	Employee welfare	
	14	Employee training and career development opportunities	
	25	Industry exchange	
	6	Use of renewable energy	
	17	Community contribution	
General Issues	2	Air pollutant emissions	
General issues	18	Minimising the impact on communities	



### Environment:

- The Group's overall GHG emissions intensity drops from 1.84 to 1.53 tons/HK\$10,000 of revenue, amounting to a 16.8% annual decrease
- Analysed and disclosed the climate-related risks and opportunities for water resources and energy projects segments with reference to the TCFD recommended framework
- For Yue Gang Water Supply, the annual energy consumption per unit of water withdrawal was 3.69 kWh/kTm, far outperforming the required 4.53 kWh/kTm under National Standard
- The annual coal consumption of Zhongshan Energy for each unit of power supply was 306.71 g/kwh, successfully achieving the annual target of 307.5 g/kwh again
- Teem Tower ranked 9th and was awarded the title of "Premium Grade-A" office building in the commercial building rating organised by the Guangzhou Municipal Commerce Bureau
- The Hotel Management Company organised training on waste segregation and developed an assessment mechanism to ensure effective implementation of its waste management measures





### Market:

- The overall customer satisfaction score/ rate was 98.5 for Water Holdings, 95.48% for Teem Group and 92.23 for the Hotel Management Company respectively
  - The Water Resources Segment has adopted the Personal Business Objective Commitment (PBC) Scheme and attained full marks in relation to smart operations and waterworks construction projects
- Teemall Department Store and six hotels owned or operated by the Hotel Management Company have obtained the ISO 9001 Quality Management System certification

### Social:

- Percentages of male and female employees who received training reached 98.79% and 99.83% respectively
- Achieved all production safety targets for all business segments
- The total number of hours of the Group's volunteer activities reached 93,555 hours and the total donation amount exceeded RMB20,000,000





# CORE SUSTAINABILITY

# 5.1

### **ADDRESSING CLIMATE CHANGE**

Climate change is one of the global topical issues when it comes to sustainable development. International organisations and governments engage in continuous discussions to alleviate and address challenges arising from climate change and keep rolling out climate-related initiatives and policies, with an aim to accelerate the transition to a low-carbon economy and achieve the goals of the Paris Agreement. In the face of intensifying climate change, the Chinese government took the lead to lay out aggressive visions of achieving carbon emissions peak by 2030 and carbon neutrality by 2060. We understand that climate change and extreme weather not only bring potential risks to business operations, but present opportunities for business and technology development in the industry. We are also fully aware of the urgency to implement our sustainable development strategy and low-carbon business model and are committed to adopting various mitigation measures to build up climate resilience and adaptability of each business segment.

Based on our previous works of identifying and assessing climate change-related risks, we further looked into the risks and opportunities faced by our water resources and energy segments in a more comprehensive way during the year to further understand and assess the threats posed by climate change. With reference to the recommendations of the Task Force on Climate-related Financial Disclosures (TCFD), we have communicated to stakeholders about our approach on climate change adaptation and mitigation under the core areas of "Governance", "Strategy" and "Risk Management".

#### **CLIMATE CHANGE GOVERNANCE**

The Company's ESG Committee is responsible for identifying, assessing and managing the Group's ESG risks and opportunities, with a focus on climate change-related issues. The ESG Committee regularly reviews and updates the profiles of climate change-related risks and opportunities identified and reports the results to the Board. The ESG Committee is also responsible for directing all business segments to develop and adopt appropriate response measures and integrate climate change-related risks and opportunities into their enterprise risk management mechanism and operations strategy to improve their adaptability to climate change.

The management and relevant departments of each business segment within the ESG governance structure are responsible for assisting in the identification of climate change-related risks and opportunities at the operational level. They carry out a multi-dimensional analysis on the physical and transition risks and associated opportunities from the perspective of the departments' daily roles and responsibilities so as to provide information for the ESG Committee and the Board to formulate future strategic plan and response plan.

#### **CLIMATE CHANGE STRATEGY**

In order to standardise the management approach of the Group and various business segments on climate change issues, we have developed the Climate Change Policy of Guangdong Investment Limited, which sets out the Group's strategy and commitments to addressing climate change and provides guidelines for subsidiaries and suppliers to incorporate climate change, energy saving and emissions reduction and other considerations into every phase of business operations, such as project investment, design, development and operation so as to adapt to and manage the continued impacts of climate change on business, environment and society.

At the same time, climate change presents opportunities for our business operations to promote the Group's low-carbon transition and build a business model with high resilience to climate change. We conduct business in strict compliance with policies and regulatory requirements. Each business segment has formulated respective business development and performance improvement plans in response to the market demand for environmentally friendly and low-carbon products and services, and continues to improve performance through innovation and technological upgrading so as to achieve sustainable and low-carbon operation in the long run.

#### CLIMATE CHANGE RISK AND OPPORTUNITY IDENTIFICATION, ANALYSIS AND MANAGEMENT

Given that our water resources segment and energy segment are engaged in the provision of public utility services, we are fully aware of the potential long-term impacts of climate change on our downstream customers, key stakeholders, facilities and business development. Therefore, we conducted in-depth identification and analysis of climate change-related risks and opportunities for the two key segments during the year and streamlined and improved relevant internal management policies accordingly.

To ensure the identification and analysis exercise is effective and specific, we conducted background research, case studies and peer benchmarking to gain an understanding of the impacts of extreme, acute and chronic climate phenomena caused by climate change on the operation of the segments. We also delved into the updates and implementation of relevant policies, initiatives and regulations. We then invited the departments overseeing operation, facilities management, emergency response, finance and risk management under the segments to give score and discuss the identified physical and transition risks in two key dimensions of risk likelihood and risk severity against the assessment criteria of the segments' enterprise risk management systems to obtain quantitative and objective results.

### Water Resources Segment:

The table below sets out the key physical and transition risk arising from climate change identified for our water resources segment together with the relevant opportunities.

Risk Category	Risk Characteristics	Risks	Description of Risk
Physical risk	Acute	<b>5</b> Typhoons	Increased probability of high-intensity typhoons may lead to unceasing strong winds and torrential rains and hence river flooding, which when coupled with storm surges, waves and tides caused by winds and air pressure, may cause rising water surface and intrusion of seawater into river mouths, affecting the water quality. Coastal areas might also be inundated and cause damage to facilities.
		۲ ۲ Thunderstorms	With the increase of carbon dioxide and the warming of the land surface, high-intensity updraft accompanied by rainstorms is more likely to produce thunder and lightning, posing serious safety hazards to facilities and people.
		Extreme precipitation	Extreme precipitation, such as increased number of days of heavy rainfall in a year, massive amount of rainfall within a short period of time, and the increase in annual maximum precipitation, will result in rapid rising of water bodies, threatening the safety of facilities and people in low-lying areas along rivers, lakes and coasts. Massive acid rain will also cause water pollution.
		Floods	The increase in temperatures leads to expansion of rivers, lakes, seas and other water bodies, posing the risk of abnormally high water levels. Global warming accelerates the evaporation of water bodies such as rivers and lakes, resulting in uneven rainfall distribution, increase in drainage of individual water bodies and floods.
		Droughts	A persisting lack of precipitation or high temperature with insufficient rainfall leads to a lack of moisture in air and soil. The associated earth cracks, water stress and change in water quality may induce higher costs of water supply and difficulty in meeting the demand for water supply.
		Extreme cold	Dramatic cooling and cold wave weather in winter may lead to extreme conditions such as snowfall and icing, resulting in damage to or malfunction of water pipes, meters and other facilities.
		Landslides and mudslides	Extreme rainfalls wash against the hillside and loosen the soil, resulting in mudslides and landslips that cause water pollution and damage to facilities.

Risk Category	Risk Characteristics	Risks	Description of Risk
Physical risk	Chronic	Global warming	Global warming will result in rising average temperature throughout a year (including summer and winter), increasing the frequency of heat waves, droughts, wildfires and other acute risks.
		Rising sea levels	Global warming will accelerate the melting of polar ice sheets and the expansion of seawater, resulting in rising sea levels in the long run and hence the early obsolescence of existing assets in coastal areas. Therefore, the site selection, planning and design of a new project should factor in the impact of sea-level rise.
Transition risk	Policy and Compliance	Water quality management	China has introduced a number of policies to control water pollution and corporates need to enhance the water quality and ecology management that have been worsened due to climate change to ensure strict compliance with water quality standards.
		Water supply management	To cope with drought and water shortage, the Chinese government will pursue a strict water resources management system, aiming to cap water usage at 700 billion m <sup>3</sup> for the national economy by 2030, and require corporates to comply with the policy to seek continuous improvement on water use efficiency.
	Technology	Water treatment efficiency	To align with China's long-range goals of peaking carbon emissions by 2030 and achieving carbon neutrality by 2060, corporates should effectively improve the energy efficiency of water treatment process or turn to other alternatives such as renewable energy and carbon capture, storage and utilisation technology to reduce carbon emissions generated from operations.
	Markets	Customer preference	Driven by the Chinese government's promotion and advocacy, carbon neutrality commitment, water resources planning and other efforts, residents and industrial customers have become more environmentally conscious. They would factor in environmental considerations in selecting services and tend to prefer low carbon services, which will change the existing balance between market demand and supply.
	Reputation	Stakeholders' concerns	China's action plan on climate change involves a wide range of social participation. The general public has paid increasing attention to and gained better understanding of climate change, carbon emissions and other environmental issues. The international community and capital markets also expect corporates to implement plans for energy conservation and emissions reduction. Failure to actively respond to climate change may affect the public image of an enterprise, resulting in reputational damage.

Opportunity Category	Opportunity Characteristics	Opportunity	Description of Opportunity
Opportunity	Markets	New market demand	As set out in the Chinese government's 14th Five-Year Plan, one of the key points in relation to environmental protection is to coordinate and improve the quality and standard of rural ecological and environmental protection and promote the coordinated development of urban and rural ecological and environmental protection so as to regulate the construction and operation of rural sewage treatment facilities. The Group may deploy despersed and small-sized wastewater treatment facilities in various rural areas step by step to enter the new market and expand its business coverage.
		Green finance	The Chinese government and the banking sector have been actively promoting green finance. The recently released Green Bond Endorsed Project Catalogue covers a number of water resources-related projects, aiming to diversify and upgrade financing channels and provide more funding for enterprises to develop new water projects.
	Products and Services	Technological innovation	The Group may build on its existing smart water services to further develop a smart water management system with reference to market demand. By delivering solutions to assist users in managing water consumption and improve operational efficiency to cope with climate change, it can engage in new lines of business with technology and attract new customers with changing preferences.
		Unconventional water sources	The National Action Plan for Water Conservation released by the Chinese government seeks to vigorously increase the public awareness of water conservation to ensure national water security. It also calls for enterprises to increase the use of unconventional water such as reclaimed water, seawater, rainwater, mine water and brackish water to seize the opportunity to expand their business and reduce reliance on individual water sources and the costs resulting from unstable operation.

25

We are aware that acute physical risks emanating from climate change, such as typhoons, floods, heat waves and droughts, have potential impacts on the operational stability, personnel safety and asset costs of our water resources segment. As such, our water resources segment has formulated a series of policies and mechanisms, proactively adopted response measures to ensure the security of water sources and water quality and boosted equipment capability to withstand extreme weather, thereby minimizing the adverse impacts of physical risks on our water supply business.

Our water resources segment has established a flood, drought and storm control ("Three-control") command office composed of various operational departments under the leadership of management. The office is responsible for formulating and implementing the Three-control plan and specific emergency response plans and directing the Three-control working groups to carry out Three-control, salvage and disaster relief in their operating areas. Besides, five dedicated working teams have been set up to assist with the coordination of the Three-control efforts in relevant areas.



Furthermore, we have developed emergency plans to cope with various extreme weather events and water pollution incidents, such as the Contingency Plans for Water Pollution Emergencies, and the Contingency Plans for Flood and Storm Prevention of Dongshen Water Supply Project. Those plans clearly set out the key risks that may arise from various emergencies, internal governance structure and respective responsibilities, communication of early warning mechanism, as well as the planning of specific responsive actions, emergency supplies reserve, necessary equipment and regular training, to ensure that our personnel are well equipped with expertise and skills to handle various emergencies.



#### **Case Study: Coping with Typhoon Higos**

In August 2020, immediately after the Shenzhen government issued a yellow alert for typhoon Higos, we assessed the situation and possible impacts according to the corresponding emergency plan in an orderly manner, timely activated warning system and internal communication and implemented precautionary and emergency response measures, such as lowering reservoir water level to ensure adequate capacity for flood control. With these efforts, we made it through the typhoon safely without suffering any loss.

In addition, we organise regular emergency drills to enhance employees' safety awareness and crisis consciousness and improve their skills in handling emergencies so as to ensure the security of corporate property as well as their personal safety. During the year, our water companies conducted various emergency drills, including the joint bases drills for flood prevention and emergency response for year 2020 to level up our employees' capability in flood prevention so as to ensure the security of our facilities throughout the year.



With a robust communication mechanism in place, we are able to reinforce the collaboration among our water companies to cope with physical risks. We work with government authorities responsible for water supply and treatment to ensure that adequate resources and personnel are available to handle different emergencies in case of occurrence.

### Case Study: Giving feedback to improve the Administration Measures of Shenzhen Municipality for Flood Control and Drought Relief of Water Projects

In 2020, we closely engaged with the Shenzhen Water Resources Bureau and gave our feedback in respect of control authority, emergency response activation process, responsibilities of water project management units, collection and reporting of water, rainfall and water project information to revise and improve the Administration Measures of Shenzhen Municipality for Flood Control and Drought Relief of Water Projects (《深圳市水工程防汛抗旱調度管理辦法》). It would help facilitate the coordination and alignment of the Group's water projects with Shenzhen's water resource project in respect of flood prevention and control.

Given that risks arising from climate change may affect the quality and security of water supply, we conduct water pollution investigations regularly and utilise smart platforms to closely monitor water quality standards. We require water companies with relatively higher risks to equip themselves with emergency and backup water sources and to supply water with dual sources, thereby further ensuring the stability and quality of water supply.

In addition, our water resources segment may be exposed to transition risks resulting from climate change, such as regulatory, market and reputational risks, which may have potential financial implications. In response, apart from formulating the Climate Change Policy of Guangdong Investment Limited to enhance risk management and response measures, we collect industry policy information, standards and expert opinions, and timely disseminate such information to our subsidiaries so that the whole business segments can better align with the policy trends and national development strategies to improve business practices. Furthermore, we have strict internal control standards in place which closely follow the policies and industry developments of the areas in which we operate, such as the Evaluation Indicators System for Standardised Operation and Management. This allows us to maintain highly standardised operation and achieve our production targets with effective reduction of costs and risks.

27

### Energy Projects:

The table below sets out the key physical and transition risks arising from climate change identified for energy projects together with the relevant opportunities.

Risk Category	Risk Characteristics	Risks	Description of Risk
Physical risk	Acute	<b>5</b> Typhoons	Increased probability of high-intensity typhoons may lead to sustained strong winds and torrential rains, which may cause damage to power generators and energy transmission facilities, resulting in unstable power supply and safety hazards to people.
		Extreme precipitation	Extreme precipitation, such as increased number of days of heavy rainfall in a year, massive amount of rainfall within a short period of time and the increase in annual maximum precipitation, will result in rapid rising of water bodies to increase the risk of inundation of infrastructure in low- lying areas along rivers, lakes and coasts, and cause safety hazards to people.
		Floods	The increase in temperatures leads to the expansion of rivers, lakes, seas and other water bodies, posing the risk of abnormally high water levels. Global warming accelerates the evaporation of water bodies such as rivers and lakes, resulting in uneven rainfall distribution, increase in drainage of individual water bodies and floods.
		Extreme heat	More days of high temperature, increased probability of occurrence of heat waves, and higher warm spell duration index will increase the safety risk of outdoor workers. To cope with surging demand for electricity, power generators or energy transmission facilities may have to operate in an overload condition, which may result in exceeding their operating temperature range.
		Extreme cold	Dramatic cooling and cold wave weather in winter may lead to extreme conditions such as snowfall and icing, resulting in damage to or failure of power generators or energy transmission facilities.
	Chronic	Global warming	Global warming will result in rising average temperature throughout a year (including summer and winter), increasing the frequency of heat waves, droughts, wildfires and other acute risks.
		Rising sea levels	Global warming will accelerate the melting of polar ice sheets and the expansion of seawater, resulting in rising sea levels in long run and hence the early obsolescence of existing assets in coastal areas. Therefore, the site selection, planning and design of a new project should factor in the impact of sea-level rise.

Risk Category	Risk Characteristics	Risks	Description of Risk
Transition risk	Policy and Compliance	Energy mix	To meet its long-range goals of peaking carbon emissions by 2030 and achieving carbon neutrality by 2060, the Chinese government will phase out fossil energy and shift to non-fossil energy and increase the proportion of clean energy and non-fossil energy so as to reduce the level of carbon dioxide emissions and pollutant emissions, accelerating the transition to green and low-carbon energy.
		Carbon trading	The Chinese government has launched carbon emission trading markets, setting carbon emission quotas for enterprises. Those enterprises whose emissions exceed their quotas need to purchase more quotas from the emission trading market, which means they have to bear environmental and social external costs caused by the emissions. Instead, enterprises whose emissions are less than their quotas can sell the remaining quotas. The power generation industry is one of the industries covered by the national carbon emission trading system.
	Technology	Energy technology and efficiency	To align themselves with China's long-range goals to peak carbon emissions by 2030 and achieve carbon neutrality by 2060, enterprises should effectively improve energy efficiency and eliminate outdated production planning and equipment or turn to other alternatives such as renewable energy and carbon capture, storage and utilisation technology to reduce carbon emissions generated from their operations.
	Markets	Customer preference	Driven by the Chinese government's promotion and advocacy, carbon neutrality commitment, energy sources planning and other efforts, residents and industrial customers have become more environmentally conscious. They would factor in environmental considerations in selecting services and tend to prefer low carbon services, which will change the existing balance between market demand and supply.
	Reputation	Stakeholders' concerns	China's action plan on climate change involves a wide range of social participation. The general public has paid increasing attention to and gained better understanding of climate change, carbon emissions and environmental issues. The international community and capital markets also expect enterprises to implement plans for energy conservation and emissions reduction. Failure to actively respond to climate change may affect the public image of an enterprise, resulting in reputational damage.

Category of Opportunity	Characteristics of Opportunity		Description of Opportunity
Opportunity	Product	Renewable energy services	To comply with the national green policy or development direction, power companies may invest in developing new markets to provide customers with renewable electricity generation, carbon offset and other solutions so as to assist corporate customers in emissions reduction.

Zhongshan Energy has developed multiple precautionary and emergency response plans against risks of extreme weather, such as the Emergency Plans for Typhoons, Floods and Strong Convection of Zhongshan GDH Energy Co., Ltd., the Power Failure Response Plan of Zhongshan GDH Energy Co., Ltd. and the Emergency Plan for Inundation of Power Station (Pumphouse) of Zhongshan GDH Energy Co., Ltd. Furthermore, Zhongshan Energy keeps a watchful eye on weather changes and assesses the impact and severity of any extreme weather event so that it may timely activate corresponding level of emergency procedures to ensure safe and stable operation of power generating units and mitigate the impact of such event on its business operations. We organise emergency drills for employees on a regular basis to ensure that they are well-equipped to deal with emergencies. In addition, Zhongshan Energy has adopted various energy conservation programmes to strengthen the management of energy conservation of power generating units to improve the efficiency of energy use. It also incorporated energy use indicators into departmental performance appraisal. For details, please refer to the next section.

To cope with the transition risks, we actively participate in carbon trading scheme in accordance with the Measures for the Administration of Carbon Emission Trading (Trial) (《碳排放權交易管理辦法(試行)》), the Administrative Rules for the Registration of Carbon Emission Rights (Trial) (《碳排放權登記管理規則(試行)》), the Administrative Rules for the Trading of Carbon Emission Rights (Trial) (《碳排放權5易管理規則)(試行)), the Administrative Rules for the Settlement of Carbon Emission Rights (Trial) (《碳排放權結算管理規則(試行)》) the Guidelines on Enterprise Greenhouse Gas Emissions Accounting and Reporting – Power Generation Facilities (《企業溫室氣體排放核算方法與報告指南發電設施》) and the 2019-2020 National Carbon Emission Trading Cap Setting and Allowance Allocation Implementation Plan (Power Generation Industry) (《2019-2020年全國碳排放權交易配額總量設定與分配實施方案 (發電行業)》). When our carbon emission exceeds the quota allocated to us by the Guangdong Development and Reform Commission, we will purchase unused quotas from other enterprises via the carbon exchange market to take responsibility for the carbon emissions and environmental impact caused by our business activities.

In the future, we will also continue to pay close attention to the latest policy changes in the energy industry, keep abreast of the latest technological advances, actively conduct studies on the renewable energy sector and explore opportunities in renewable energy projects.

# 5.2

### ACCELERATING LOW-CARBON DEVELOPMENT

Since signing the Paris Agreement in 2016, China has placed continuous effort in formulating and implementing a number of policies in relation to carbon emissions and energy use, including the commitments set out in the 14th Five-Year Plan to further reduce its economic energy intensity and carbon intensity, and the commitments made in 2020 to peak carbon emissions by 2030 and achieve carbon neutrality by 2060, seeking to gradually achieve the sustainable development goals.

The Group considers effective energy use and carbon emission management as essential elements to cope with climate-related risks. In this respect, we are committed to fulfilling our responsibilities as a corporate citizen. On top of regulatory compliance, we play an active role to facilitate the implementation of national and international strategies on low-carbon development and environmental protection to integrate the concepts of low-carbon development into every aspect of our business operations and promote the implementation of energy-saving and emission-reduction measures across our business segments, so as to cope with and mitigate the risks arising from climate change.

#### WATER RESOURCES SEGMENT

GDI's water resources business mainly operates in Southern China and Eastern China, providing quality and reliable water services for over ten million population. We always take our responsibility as a public utility seriously and have made concrete efforts in energy conservation and emission reduction in the course of business. During the year, we further improved our water supply efficiency. Although the Shenzhen Municipal Bureau of Industry and Information Technology cancelled the key energy consumption assessment on our operations during the 12th Five-Year Plan and 13th Five-Year Plan and hence lowered the regulatory pressure on energy use, we continued with our efforts to plan and optimise the energy consumption performance of our daily operations for energy conservation and efficiency enhancement, with a view to cost control, fulfilment of corporate responsibility and alignment with national policies.

We have put the Regulation on Standard Configurations of Pump (Power) Stations in place and appointed personnel to assess and control the indicators of energy consumption per unit of our daily production and operation. Our Control Centre performs monthly analysis of electricity consumption of each production process, electricity consumption balance of power supply system and overall energy consumption performance and calculates indicators such as water consumption and efficiency of each system and pump station, which provide a basis for us to continuously improve energy saving performance of each water treatment facility.

In addition, with reference to the tariff mechanism for peak/trough periods for major power consumption industries in Dongguan, we developed different control plans for peak/valley periods pursuant to the Comprehensive Budget Management Measures and other policies to optimise the water pumping of our water supply systems so as to effectively allocate production resources and reduce energy wastage, thereby cutting carbon emissions from electricity wastage and effectuating low-carbon practices together with power generation enterprises.

31



Our Control Centre optimises the water pumping flow at different time slots every day by reference to the above strategy, taking into account factors such as equipment status, maintenance arrangements and the Three-control requirements of pump stations at different levels. During the year, we saved approximately RMB10 million in power costs by optimising control plans.

We have been keeping track of the electricity consumption of our pump stations, organising regular preventive maintenance and overhaul for our generating units and ranking the generating units by efficiency through analysis and calculation of their real-time operating data. As such, we can prioritise the operation of generating units of high efficiency in order to improve the overall efficiency of each pump station and reduce system-wide energy consumption. Within the design capacity, we also raised the operating water level of pump sumps and lowered pumping head, thereby reducing energy consumption. Furthermore, the annual average efficiency factor of power supply system has been maintained at above 0.95 through proper matching of the operation of synchronous generators and the asynchronous generators at a pump station.

In addition, we regularly engage a third-party energy-efficiency rating agency to assess the energy consumption of equipment at each pump station and upgrade equipment with declining efficiency. Where appropriate, we also eliminate outdated equipment and carry out upgrading work, thereby continuously improving the company's energy utilisation and avoid unnecessary wastage and carbon emissions in the course of business.



### Case Study: Upgrading of the Main Units at Yantian Pump Station

We upgraded the three main units at Yantian Pump Station. The upgraded units operate in stable condition with efficiency significantly improved. The efficiency of pump station devices was increased from 63% to approximately 75%.





#### Case Study: Upgrading of Air System at Jinhu Pump Station

Two air compressors of the air system at Jinhu Pump Station were replaced with high-efficiency Bolaite compressors (BLT-20A) which are low-pressure screw compressors with patented oil-injected screw rotors that can ensure long-time stable operation and reduce energy consumption to save production costs.



33



#### **Case Study: Renovation of Bio-nitrification Plant**

We upgraded the bio-nitrification plant to solve equipment problems such as ageing, rusting and frequent failure by replacing five channels with a total of ten drainage pumps. As a result, the operational stability of the facility has been improved with obvious efficiency enhancement after the renovation.

With the measures set out above, we maintained satisfactory performance throughout the year in energy consumption per unit despite adverse factors such as bad weather, flood control and change in the quality of untreated water. The system-wide energy consumption per unit of water withdrawal of Yue Gang Water Supply during the year was 3.69 kWh/kTm, far outperforming the required 4.53 kWh/kTm under the National Standard GB/T30948 Code of Practice for Technical Management of Pumping Station.

#### Case Study: Photovoltaic Power Generation Project of Nanchang Water Plant

Changnan Water Plant, a subsidiary of Nanchang Water Supply Company Limited, made use of its tank bodies and building roof to develop a photovoltaic power generation project. With a total installed capacity of 2.3 MW and an annual average power generation of 2.0 MW, the project generates power for internal use and helps the water plant save about RMB1.36 million in electricity costs each year. After being put into operation, the project not only greatly reduced the water production cost of the water plant, but also increased the utilisation of the space within the water tanks, delivering obvious economic, social and environmental benefits.

### **ENERGY PROJECTS**

Under the global trend of transformation towards low carbon, the energy industry is regarded as a crucial part of the process of carbon emission reductions across all countries. In this connection, the Group continuously pays attention to the discussions of various stakeholders on relevant issues and regularly reviews the impact of its energy projects on climate change. Meanwhile, the Group has been expanding other relatively low-carbon emission core operations, and thus the contribution of energy projects to the total revenue of the Group has decreased year by year, declining from 9.82% in 2018 to 5.20% in 2020. To further strengthen the management of energy consumption and carbon emissions, Zhongshan Energy has taken into account its own business development and formulated the Standards on Supervision and Administration of Energy Conservation of Zhongshan GDH Energy Co., Ltd. and the Standards on Supervision and Administration of Environmental Protection Technology of Zhongshan GDH Energy Co., Ltd. in accordance with a series of national and provincial policies. These standards set out the functions, scope and specific tasks of supervision and management in the production process together with an assessment mechanism in place to promote a more systematic, scientific and institutionalised internal supervision mechanism.

According to the requirements of the Standards on Supervision and Administration of Energy Conservation of Zhongshan GDH Energy Co., Ltd., Zhongshan Energy has established a three-tier energy management system consisting of the company, departments and teams. The general manager of the company acts as the head of the energy conservation working group and the production safety and technology department is responsible for organising, overseeing, inspecting and coordinating daily energy management of the company. The operation department, the equipment maintenance department and the materials management department each have a part-time energy efficiency supervisor who is responsible for the energy saving work of the department. Each production team has an energy efficiency officer who is either the team leader or a technician.



**Corporate Energy Conservation Management Structure** 

During the year, we launched a number of energy-saving initiatives, including preventing accumulation of dirt on the heat transmission surface of each cooler, increasing feedwater temperature, optimising the operating mode of slurry circulation pumps so as to reduce energy use and operating costs from various aspects.
In order to further raise employees' awareness of the importance of energy conservation and emissions reduction and effectively control energy costs in production, we continued the implementation of the Competition Management Measures on Performance Indicators of Zhongshan GDH Energy Co., Ltd., which involves an assessment of the performance of each operating department. According to the Measures, 30% of the departmental assessment is allocated to the competition appraisal to motivate the operation team to reduce energy consumption in the course of production and operation. Indicators for the competition encompassing key operational indicators, such as electricity consumption rate of production factories, average electricity supply, steam temperature and equipment efficiency, will be collected by the SIS monitoring system of the power plant.

In 2020, the annual coal consumption of Zhongshan Energy for power supply was 306.71 g/kwh, successfully achieving the 2020 target of 307.5 g/kwh. In addition, our two generating units have met the national ultra-low emission standards, with emissions compliance rates of 99.64% and 99.57%, respectively.

### Case Study: Offering Centralised Steam Supply for Manufacturing Plants in the Industrial Park

To use energy more efficiently and improve overall energy efficiency and reduce local carbon emissions of neighboring manufacturing plants, Zhongshan Energy makes use of its high-efficiency boilers to provide centralised steam supply for small manufacturing plants in the industrial park where it is located, reducing their energy consumption in the course of operation and hence the corresponding carbon emission at point sources. During the year, we supplied 1,690,000 tons of steam to 165 small factories.

### **OTHER BUSINESS SEGMENTS**

### **Property Investment, Development and Department Store Operation:**

Teem Group conducts routine inspection to identify any possibility of improving the energy consumption of properties and reduce unnecessary carbon emissions.

### Case Study: Teem Tower honoured as "Premium Grade-A" office building

During the year, Teem Tower participated in the commercial buildings rating programme conducted by the Guangzhou Municipal Commerce Bureau. The event was aimed to boost building economy and steer commercial building design towards standardisation, quality and high-end development. The review was conducted in accordance with local standards of Guangzhou, such as the Standard for Grade Assessment of Commercial Buildings and the Implementation Rules for Rating of Commercial Office Buildings in Guangzhou (Trial). Teem Tower stood out from more than 100 buildings for its outstanding contribution to building economy, high-quality operation and management services and up-to-standard hardware and facilities. It was ranked 9th and awarded the title of "Premium Grade-A" office building.



Over the years, Teem Tower has built excellent rapport with its tenants, with the average occupancy rate maintained at around 95%. Upholding the philosophy that quality comes from craftsmanship, Teem Tower always seeks improvements in property service quality and

green building and has won a number of awards, including LEED Platinum Certification, "Exemplary Building of Guangdong on Property Management Services" and "Exemplary Building of Guangzhou on Property Management Services", successfully ranking among the world's top-grade green buildings.





Case Study: Sheraton Guangzhou Hotel upgraded central air-conditioning system with intelligent control

During the year, Sheraton Guangzhou Hotel upgraded its central air-conditioning units, water pumps and cooling towers with intelligent centralised control, which helps cut labour costs and enhance energy savings compared to previous long-term manual control.

An intelligent centralised control system, featuring high efficiency, long service life and enhanced energy saving, enables intelligent monitoring of refrigerating units, cooling towers, chiller pump, cooling pump, electric valves and other mechanical devices in the refrigeration room as well as the chilled and cooling water systems. It performs refined machinery unit management through the weak current system integration and the auto start/stop function of the equipment, effectively achieving the goals of energy saving and labour cost reduction. From the system's official commencement of operation in August to the end of the year, the hotel reduced electricity consumption by 452,782 kWh compared to the corresponding period last year.



### Hotel Ownership, Operation and Management:

Each year, the hotel headquarters compile energy budgets, set targets and conduct a work review for hotels under its management. Besides, it performs annual, quarterly and monthly equipment maintenance for hotels under its management to closely monitor the energy efficiency of equipment.

During the year, we adopted a number of equipment optimisation measures, including suspending the use of hot water storage tanks and reducing the frequency of running water heaters based on occupancy rate to reduce energy consumption. We selected appropriate operating mode for transformers based on actual loading to reduce the electricity consumption of no-load operation and adjust the operation of air-conditioning units as per peak, flat and valley load periods of power usage so as to increase electricity consumption during valley load period, thereby achieving energy conservation and consumption reduction.

37

Greenhouse gas (GHG) emissions	Unit	2020	2019	2018	2017		
Water Resources (1)							
GHG emissions – Scope 1 (3)	tons of CO <sub>2</sub> e	1,813.23	466.24	496.36			
GHG emissions – Scope 2 (3)	tons of CO <sub>2</sub> e	383,049.20	334,527.77	304,685.78	280,006.06		
Teem Group <sup>(1)</sup>							
GHG emissions – Scope 1	tons of CO <sub>2</sub> e	2,173.34		40,038.96	43,314.01		
GHG emissions – Scope 2	tons of CO <sub>2</sub> e	38,038.53	34,303.05				
Hotel Management Company	1)						
GHG emissions – Scope 1	tons of CO <sub>2</sub> e	335.17	7,128.37	7,093.72	8,269.89		
GHG emissions – Scope 2	tons of CO <sub>2</sub> e	7,870.29					
Zhongshan Energy <sup>(2)</sup>							
GHG emissions – Scope 1	0'000 tons of CO <sub>2</sub> e	312.24	269.04	278.24	240.12		
GHG emissions – Scope 2	tons of CO <sub>2</sub> e	158.17	75.59	383.83	2,428.99		
GDH Highway <sup>(1)</sup>	GDH Highway <sup>(1)</sup>						
GHG emissions – Scope 1	tons of CO <sub>2</sub> e	184.64	835.76	734.78	844.32		
GHG emissions – Scope 2	tons of CO <sub>2</sub> e	776.26					
Hong Kong Headquarters (1)							
GHG emissions – Scope 1	tons of CO <sub>2</sub> e	10.13	77.09	04.24	,		
GHG emissions – Scope 2	tons of CO <sub>2</sub> e	73.44		84.21	/		
The Group <sup>(1)</sup>							
GHG emission intensity	tons/HK\$10,000 of revenue	1.53	1.84	2.35	2.25		

Notes:

- 1. GHG emissions are calculated based on the gross electricity consumption with reference to the emission factor of the regional power grid in China and the gross consumption of diesel and petrol. GHG emissions of the Hong Kong headquarters are estimated based on the Reporting Guidance of the Stock Exchange.
- 2. GHG emissions are estimated in accordance with the Guidelines on Accounting and Reporting of Greenhouse Gas Emissions from China's Electricity Generation Enterprises issued by the National Development and Reform Commission.
- 3. The production capacity of our water resources segment was expanded in 2020 as compared with 2019, which was due to acquisition of new water resources projects such as Jiangxi Guangdong Public Utilities Holding Co., Ltd. (which holds five water supply companies and five sewage treatment plants) and Yunfu Asset Package (which comprises six companies engaged in water supply or sewage treatment businesses in Yunfu, Guangdong) and the commencement of operation of existing projects in 2020, such as the expanded water plant in Yunfu new district as well as the expanded Meizhou No. 2 sewage treatment plant and the Zhouxi River and Huangtang River water purification plants in Meizhou. As a result, the gross consumption of petrol and diesel increased, which resulted in the rise in the GHG emissions of our water resources segment in 2020 as compared with 2019.

### STRENGTHENING WATER MANAGEMENT

Water scarcity is a huge challenge confronting many regions of the world. According to publicly available information, more than one-third of the regions across China are facing serious water stress, coupled with social development and population growth. The Chinese government has been reinforcing the implementation of water resources management policies and measures, and explicitly imposed stricter management on water resources in three aspects, namely strengthening the control on the development and utilisation of water resources, improving the control on water efficiency and enhancing the sewage discharge standards in water functional areas. In addition, a national target has also been established to limit water consumption for economic purpose to 700 billion cubic metres by 2030. Our water resources segment and other business operations are well equipped to strictly monitor the management and utilisation of water resources and vigorously alleviate water stress, thereby contributing to the national goal of water conservation.

### SYSTEMATIC MANAGEMENT

As our water resources business relies heavily on stable water supply, we address the risks arising from water stress during the course of our operations in a prudent manner. The Policy on Water Supply Management of Guangdong Investment Limited provides guidance on our management of water resources and states that total water consumption shall be controlled from the source to improve comprehensive utilisation of water resources and to avoid wastage. We are committed to improving the efficiency of water supply, effectively reducing the pipeline leakage, strengthening water efficiency control and providing training on water source protection and water conservation for downstream and end users. At the operational level, our water resources segment has also formulated a series of policies and internal management measures, including the Regulation on Reservoir Operation and the Plan for Reservoir Operation in Flood Season, to cope with water stress.

Before the commencement of any new project, we conduct preliminary works such as water resource reliability analysis, water supply continuity assessment, water quality assessment and downstream water consumption forecast to ensure that the project will not be affected by water stress in the future. Meanwhile, we proactively respond to and work with the local government by participating in the preliminary research, planning and analysis of waterworks construction projects such as water diversion. Through the integrated management of upstream, midstream and downstream processes, we strive to minimise the risks arising from water stress.

In addition, we closely monitor the risk of water stress to ensure the stability of our water supply. By following the annual allocation plan, the Water Resources Department of Guangdong Province and the Dongjiang River Basin Administration Bureau make every effort to ensure the water resources segment can access sufficient water sources in accordance with its specified water supply quota. Moreover, our water resources segment has a Three-control plan in place to cope with the risk of water stress.

The management of the water resources segment has also set a good example for ensuring sustainable water supply. As spearheaded by the management, we launched the Personal Business Objective Commitment (PBC) Scheme. Pursuant to the scheme, the internal operational performance indicators of the water resources segment is pegged with the individual performance of persons in charge of respective water companies so as to increase the responsibility of the management of each water company and ensure the consistency of water resources management objectives between the water resources segment and its subordinate water companies. In addition, we have established multi-tier incentive and assessment mechanisms at corporate and departmental levels for key water, tap water and sewage operations, such as pipeline leakage rate, production units' energy consumption and key project management, into individual integrated assessment. The assessment results are closely pegged to the remuneration of the persons in charge of the subordinate water companies in a bid to encourage employees to pay attention to water stress and improve the companies' overall operational efficiency in discharging their daily duties.

During the year, Water Holdings reduced water leakage by 13 million tons in total by adopting a number of measures to optimise water supply pipeline networks, including analysing the pipeline network status of each water supply company, setting up goals and work plans and improving the efficiency of pipeline leakage control through pipe network zoning, pressure management and pipeline leakage detection.

### **TECHNOLOGICAL APPLICATION GUARANTEE**

The water resources segment has formulated a series of management measures and technical procedures, such as the Regulations for Maintenance, Repair and Management of Hydraulic Structures, the Management Measures for Hydraulic Facilities Rating, the Rules for Monitoring and Management of Hydraulic Engineering Safety, the Management Procedures for Aqueduct Technologies, the Management Procedures for Box Culvert Technologies and the Management Procedures for Hydro Tunnel Technologies to provide guidelines for the maintenance and repair of upstream facilities including hydraulic structures and the Dongshen Water Supply Project. Furthermore, the water resources segment has put in place the Selection Guide for Materials Used in Municipal Water Supply Pipeline Networks, the Management Procedures for Urban Water Supply Pipeline Networks and other management systems, providing standards for selection of pipeline material and the management of metering and pipeline network maintenance. All these have boosted the operating efficiency of our upstream water supply chain through the application of technology and reduce the wastage of water resources and economic losses caused by pipeline leakage.

To further improve the management and control of pipeline leakage, we adopted the industry standards, namely Leakage Control and Evaluation Standards for Urban Water Supply Pipeline Networks, and the water balance analysis method of the International Water Association to evaluate the extent of leakage and boost our capability in pipeline leakage control and detection.

During the year, we continued to cooperate with academic institutions in research and development of leakage detection technology. We conducted the "Research on Optimisation Control and Analysis Algorithm for Leakage in DMA" jointly with the Research Center for Eco-Environmental Sciences, Chinese Academy of Sciences; and conducted the "Research on Influencing Factors and Control Strategy of Apparent Loss" jointly with Harbin Institute of Technology to deepen the research on algorithms for DMA leakage diagnosis and apparent loss diagnosis.

We have also developed our own core algorithms, such as intelligent network zoning, analysis of apparent loss, multi-level network leakage analysis and early warning technology. We have newly built and applied intelligent network leakage management system and control tools to overcome the technical barriers and improve the efficiency of leakage control of our water companies. By assessing the pressure in water supply network and the pressure points distribution, we further applied network balancing modelling to diagnose the pressure in a pipeline network, and take targeted measures to optimise pressure in a pipeline network, such as adding pressure points, tackling network bottlenecks and pipeline reconstruction.

On top of technical application, we also strengthened the inspection and maintenance of the facilities of our water projects. 99% of our facilities and equipment were in good condition without any obvious leakage identified. Our water companies review and score the technical management, special engineering works, maintenance and repair inspections of hydraulic structures every year. All our hydraulic structures remained intact.

### CONSCIOUS WATER CONSUMPTION

The Group utilises its governance experience and operational advantages in the water resources segment and proactively studies and improves water utilisation efficiency to reduce the wastage of water resources and boost operational efficiency.

### **Energy Projects:**

In compliance with the Water Law of the People's Republic of China, Zhongshan Energy sets out its annual water consumption plan according to the Management Measures on Planned Water Consumption Level and submits the Form of Annual Planned Water Consumption Level to Xijiang River Basin Administration Bureau of Guangdong Province for approval. During the year, the total volume of water withdrawal of Zhongshan Energy was 7,701,000 m<sup>3</sup>, better than the annual target of 8,593,000 m<sup>3</sup>.

We apply innovative technologies to improve the efficiency of wastewater collection and reclamation. The outlet pipes of PCF filters were upgraded to allow coal-containing wastewater flow to the drainage tank of the gravity filter where flocculant is added to separate solids by sedimentation to produce reclaimed water, thereby reducing water consumption. The upgrade enables us to cut 28,800 tons of water withdrawal from rivers each year. We will also tighten the valves of generating units that are not in operation to reduce industrial water consumption and conduct regular check to identify and replace leaking valves in a timely manner. Thanks to the above efforts, our water consumption per unit power generated in 2020 stood at 1.92 m<sup>3</sup>/MWh.

### **RAISING WATER-SAVING AWARENESS**

GDI is committed to leveraging the business characteristics of each business segment to raise the water-saving awareness of citizens and employees. The water resources segment employed multiple ways to disseminate knowledge on water conservation, protection and management among citizens and customers, hoping to convert concepts into concrete actions and harmonise between mankind and water.



### Case Study: Activities on World Water Day • China Water Week

22 March 2020 marked the 28th World Water Day, while 22 to 28 March was the 33rd China Water Week. During the period, our water companies organised a range of activities such as water awareness campaigns and online publicity and seminars on how to use water wisely. Through these activities, we aimed to promote knowledge on water conservation and protection from different perspectives, thereby creating an atmosphere conducive to cherishing and saving water.



### Meizhou Guangdong Water Co., Ltd. held World Water Day publicity campaign

On 20 March 2020, Meizhou Guangdong Water Co., Ltd. launched an event with the theme of "prioritising water conservation and protecting rivers and lakes" on the World Water Day to contribute to building a water-saving society and raise public awareness of water conservation and protection.

Staff members distributed leaflets to citizens visiting or passing by the office on the World Water Day, shared tips and measures for water saving in everyday life and answered questions raised by them.



### Gaozhou Guangdong Water Co., Ltd. held publicity campaign during China Water Week

On 24 March 2020, Gaozhou Guangdong Water Co., Ltd. held an event with the theme of "prioritising water conservation and protecting rivers and lakes" at its business hall on Fuqian Road. At the event site, a strong ambience was created by putting up informative posters, playing water conservation promotional videos and answering questions raised by citizens. In addition, staff members distributed leaflets such as water saving tips and user manuals to citizens visiting or passing by the hall to further raise their awareness of "conserving, valuing and protecting water".



# Environmental Education and Training Base of Wuzhou GDH Environmental Protection Development Co., Ltd. opened to the public

On 30 March 2020, Wuzhou City Environmental Education and Training Base was unveiled with a ceremony at Wuzhou GDH Environmental Protection Development Co., Ltd, and opened to the public. As of the end of December 2020, it had opened to the public for 46 times and a total of about 1,200 visits have been made. It won tremendous recognition and praise from the public and effectively disseminated environmental knowledge to the public.

### Baoying GDH Water Co., Ltd. held publicity campaign on water supply regulations

On 31 March 2020, Baoying GDH Water Co., Ltd. launched a virtual publicity campaign on water supply regulations through BYR.CC, a live streaming platform. The management of the company gave lectures on the Regulations on Urban Water Supply, the Regulations of Jiangsu Province on Urban Water Resources and the Regulations of Jiangsu Province on Urban and Rural Water Supply, with a focus on water-related irregularities often seen in daily life.

ADVANCING TECHNOLOGY AND PRODUCT QUALITY

As a company with diversified businesses, GDI is committed to ensuring that all products and services meet the best quality standards, while continuously promoting business innovation and harnessing technologies to offer better customer experience. In this regard, we have formulated the Policy on Quality, Environmental Health and Safety Management of Guangdong Investment Limited to provide guidance on the production, inspection and sales of products and services across various business segments and implement those principles which highlight quality, environmental health and safety.

In addition, we attach great importance to daily communication and interaction with our customers and expect to understand customers' demands through various channels so as to meet their demands with high-quality products and services across various business segments.

### WATER RESOURCES SEGMENT

Water resources business is one of the Group's core businesses. In order to ensure the quality and safety of water supply, we have implemented the Policy on Water Quality Management of Guangdong Investment Limited to strictly supervise the quality and safety of water supply engineering works and rigorously monitor water supply quality. By doing so, we maintain strict control over water supply quality and safety so that our customers can get access to clean water. In order to improve the sustainability of water resources and ensure water safety, we leverage smart and innovative technology to improve water resources business operation and promote the development of smart water services, with the aim of easing water shortage, addressing water environment issues and ensuring water safety.

Water companies that are engaged in untreated water supply, tap water supply and sewage treatment, as well as newly acquired water companies are required to strictly implement the above-mentioned water quality management measures. We have formulated various management measures and internal documents and policies, including the Urban Water Supply Quality Monitoring and Management Guidelines, the Evaluation Indicators System for Standardised Operation and Management, the Technical Regulations for Operation and Management of Urban Sewage Treatment Plants and the Management Procedures for Urban Water Supply Pipeline Networks to provide guidance on the operation of water resources business. Through our efforts, some of our subsidiaries, including Zhejiang Bohua Huanjing Technology Engineering Co., Ltd., Gaoyou Gangyou Engineering Company Limited and Wuhua Yuehai Huanbao Co., Ltd., have obtained ISO 9001 quality management system certification, as a token of our guality management reaching international standards.

Meanwhile, we have implemented Personal Business Objective Commitment (PBC) Scheme for water quality, good operation guarantee and other indicators and continued to monitor the status and progress of various indicators. During the year, the overall performance of the PBC indicators were satisfactory, with key management themes such as the promotion of smart operation and hydraulic engineering management having been fully completed. We continued to promote and optimise internal operational efficiency by improving the system from multiple aspects.

43



### Intelligent Quality Control Through Smart Water System

The water resources segment focuses on the development of smart water services. By applying innovative information technologies including the Internet of Things, mobile internet, big data, cloud computing in production management, water supply services and operational control, we strictly monitor the quality and safety of water supply. We have also adopted multiple systems, such as dynamic modelling system for pipeline networks, intelligent system for pressure control, laboratory management system and intelligent platform for centralised metering, in order to improve the water quality reliability rate from multiple aspects.

In 2020, the water resources segment continued to promote the application of Laboratory Information Management System (LIMS) among the laboratories under its projects, forming a monitoring network which synchronise with the pace of development of the water resources business. Currently, it has 43 laboratories from which data are collected and sent to the water environment monitoring center at the headquarters through the LIMS system for group-level control, ensuring an effective and macro monitoring over water quality conditions in all areas and facilitating management.

### **Untreated Water Processing and Safety Monitoring**

The safety of untreated water is the key to the quality of tap water. We have adopted a management mechanism that classifies water conservation zones according to category, region and level. We monitor the quality of untreated water through the application of advanced technologies and keep ourselves informed of the water quality risk dynamics through follow-up monitoring over potential sources of risk so as to guarantee water quality.

The Group introduced the globally advanced automatic monitoring technology for untreated water quality in the Dongshen Water Supply Project. Together with large-scale safety monitoring systems, automatic monitoring and reporting system of water conditions, water supply metering and remote transmission system, satellite nephogram and video monitoring system, all aspects of untreated water supply and management are covered in order to provide safe and robust protection for the transportation of untreated water. In addition, the project is also the world's largest biological nitrification project with a daily treatment capacity of 4 million tons, which plays a major role in improving untreated water quality and emergency response.



### Case Study: Renewal and Renovation Work of Processing Facilities for Biological Nitrification Project

Built in 1998, the biological nitrification project at the tail of the Shenzhen Reservoir is the world's largest of its kind. As it has been in service for more than two decades, the processing facilities of the project were suffering from different degrees of aging and deterioration. In 2020, we optimised the design of the processing facilities and completed the renovation of processing facilities for No.2 channel, effectively improving aeration uniformity and sludge accumulation. This allows the water source to effectively oxidize and

degrade ammonia nitrogen and other pollutants in the water through biological contact, thus purifying water and properly solving the potential safety risks of the Shenzhen Reservoir. The renovated channel is expected to be in service more safely and effectively in the future and bring extensive benefits to the community. We expect to continue the renovation of the processing facilities for the remaining 5 channels in the coming two to three years and improve and enhance various projects so as to ensure the high quality and safety of our water source services.



Our Water Environment Monitoring Centre, which is accredited by China National Accreditation Service for Conformity Assessment ("CNAS"), possesses close to 600 types of water quality testing capabilities, covering the four major national standards for water quality, including surface water, drinking water, underground water and urban sewage testing. It has also established a water quality monitoring network for project companies across the country. The Water Environment Monitoring Centre also publishes Water Quality Monitoring Programme for the Dongshen Water Supply Project on an annual basis to obtain real-time knowledge of important water quality conditions during water intake and supply so as to ensure water quality and safety.

In addition, in order to enable accurate prediction and forecast of the water quality of water resources, the Group has built a new monitoring and early warning platform on untreated water quality through consolidating and upgrading the existing functions of the water quality early warning platform and the aquatic ecosystem monitoring and early warning platform. This facilitates the upgrading of water quality monitoring, early warning and forecast of water quality, risk source management, water quality management, statistical analysis and other functions. Meanwhile, we have established a large database on water quality and enhanced our abilities to consolidate and analyse water quality data through the integration of internal and external online water quality data, laboratory testing data, on-site testing data, and data collected via unmanned surface vessels and drones. We are able to further improve the efficiency of water quality management and the level of water quality early warning management to prevent incidents by leveraging big data analysis, establishing water quality models and adding new features of risk source management, emergency management, and alarm function.



Homepage of the Monitoring and Early Warning Platform on Untreated Water Quality In addition, we renovated the online water quality monitoring floating platform of the Shenzhen Reservoir by adopting the marine-level monitoring buoy during the year. We upgraded the profile monitoring devices, further enhancing the reliability of online water quality monitoring at the Shenzhen Reservoir. Meanwhile, we completed the renovation of the water quality monitoring buoys at the Shenzhen Reservoir, thus fully resolving the potential risk of buoy body being overturned under typhoon weather and ensuring a close monitoring of water quality during adverse weather conditions.

### Monitoring Water Quality with Innovative Technologies

We continue to advance technological innovation. To meet the inspection requirement of pump stations, we have launched an unmanned inspection robot system for pump stations based on image analysis and AI identification technologies. The implementation of the smart inspection robot system enables intelligent and refined inspection of the pump stations, saving manpower and improving operating efficiency. It provides smart inspection solutions for closed operation of water production sites.

During the year, Water Holdings also signed strategic cooperation agreements with external partners for all-round cooperation in the field of smart water services, including the establishment of the first domestic Kunpeng Smart Water Innovation Laboratory, which builds an open and shared digital ecosystem of water system and develops domestically-produced hardware and software products with autonomous and controllable technologies. It strengthens the smart water management and continuously improves our services.

The Group is currently in the process of establishing a joint innovation center for water safety in the Guangdong-Hong Kong-Macao Greater Bay Area. Meanwhile, the Group also successfully acquired a national-level scientific research platform for the development and utilisation of urban water resources and entered into a strategic cooperation framework agreement with Harbin Institute of Technology to enhance its research and innovation capabilities relating to water resources from multiple aspects, so as to improve water quality and safety. This year, we witnessed a steady improvement in our scientific research achievements as various technologies were applied and promoted. Some of our projects, for example, the Emerging Technology of Detection and Safety Control of Trace Pollutants in Drinking Water was filed for Guangdong Province Science and Technology Award (second prize), while the Demonstration Project of Advanced Treatment Technologies for Underground Water Polluted by Inorganic Salts and Its Application was accredited as a national leading technology.

### **Development of Sewage Treatment Technology**

Water Holdings is an industry leader in the development of various water treatment technologies. In 2020, we released professional technical regulations on water resources with reference to relevant domestic and international standards, in order to provide guidance on the proper management of local water resources. The regulations guide the investigation work on water ecological environment and proper sewage treatment, enhance the level of local water ecological governance and improve water ecological environment. They ensure the long-term stability and safety of water resources and provide local residents with clean and reliable water supply.

Meanwhile, we have strengthened the supervision of sources of pollution, including thorough inspection on drainage outlets within the scope of project management red line and performing closure or interception wherever possible so as to reduce water quality risk. On the other hand, we have strengthened communication with relevant authorities at the provincial or municipal level and continued to push ahead with the cleaning of various sources of pollution. We have obtained administrative permission for some projects which are undergoing preliminary construction work. We also made full efforts to promote pollution treatment work on water resources in order to improve the quality of water sources.

### **Customer-Centric Services**

In order to put our customer service concept of "attentive, sincere and considerate" into practice, we continue to improve customer services and enhance customer experience by accelerating the development of smart customer service system, strengthening information management and control over customer services of water companies and enhancing customer service quality.

We have established a unified intelligent platform for centralised metering. By using intelligent water meters for communication and data access, it simplifies the process of connecting water meters or concentrators and further lowers our costs. The intelligent platform for centralised metering enables us to conduct real-time monitoring and analysis of massive meter data and addresses issues such as low automation and complicated processes of manual metering as well as untimely payment by users. Meanwhile, deploying big data analysis can provide end users with more proactive and personalised services.

Furthermore, we have provided our customers with customer service hotlines, customer service work order system, and a unified WeChat official account, through which customers can contact our water companies. In this regard, we have also carried out training programmes on customer service management and work skills to enhance the professional skills of customer service staff, aiming to enhance customer experience in a comprehensive manner. Along the project area, our water supply management departments regularly contact customers to understand their water demand and coordinate and handle customer feedbacks in a timely manner.

In order to better know clients' needs, our water companies conduct regular user satisfaction surveys to extensively collect opinions and suggestions on water supply management from clients along the project area. The survey serves as a basis for continuous improvement of product and service quality. It covers six dimensions including corporate brand image, water quality management, water supply management, customer service, service demands of major clients as well as customer opinions and suggestions, covering 18 items regarding customer services of water supply. During the year, Water Holdings continued to gain widespread recognition from clients, with an overall customer satisfaction score of 98.5, the same as the previous year.

### **OTHER BUSINESS SEGMENTS**

### **Property Investment and Development and Department Store Operation:**

Teem Group is engaged in the operation and leasing of premium commercial properties with the goal of ensuring smooth operation of tenants and comfortable customer experience. We have a sound tenant communication and feedback mechanism in place and our operational departments are responsible for coordinating opinion survey on a regular basis. During the year, we solicited tenants' opinions and suggestions on our property management work through online questionnaire, which covered 11 items, such as public areas, public health, engineering equipment and facility management. The feedbacks collected on different areas will be sent to relevant departments for active follow-ups and handling. Our customer service representatives would also visit and communicate with those tenants who provided suggestions, in the hope of fully resolving their concerns.

In addition to carefully dealing with clients' suggestions on our services, we also take the initiative to offer innovative services so as to bring convenience to our clients in difficult times. We actively assist our tenants in solving difficulties, thus coping with the operational challenges together.



### Case Study: Viewing Properties by Using VR Technology amid the Covid-19 Pandemic

In response to the outbreak of the Covid-19 pandemic in 2020, we engaged a third-party software company to develop a VR property viewing application, which provides a panoramic view of Teem Tower's facade, surrounding environment, public facilities, the interior environment and external landscape of each unit for rent. Relevant introduction and description are also provided to our clients so that they can develop a comprehensive understanding of Teem Tower and the units for rent. The launching of the VR property viewing application effectively dealt with the inconvenience for prospective clients to view the properties during the pandemic, thus enhancing customer experience.





47

### Case Study: Rental Concessions (one-month free rent and two-month 50% rent)

While carrying out epidemic prevention and control work in 2020, both shopping centres and tenants experienced difficulties in operation due to a sharp decline in customer traffic and sales. At that time, Teem Group adopted flexible and effective stimulus measures tailored to each project. We developed rent concession programs, made adjustments to free-rent periods on a phase by phase basis, implemented differential rent strategies and adopted more favourable combination strategies. The programs reduced the losses suffered by tenants, stabilised their business operation and demonstrated the responsibilities of a responsible corporate. In particular, Teem Group offered rental concessions (one-month free rent and two-month 50% rent) to private enterprises that satisfy the requirements of the government. We also had a 3-month rental concession arrangement for small and micro enterprises, as well as individual proprietors that meet the policy requirements and specified conditions.

On the other hand, in order to protect the rights and interests of its clients, Teemall Department Store has prepared the Sales Management System Manual of Teemall Department Store to effectively enhance its sales management practises. Meanwhile, Teemall Department Store strictly abides by the requirements of the relevant laws and regulations, such as the Law of the People's Republic of China on the Protection of Consumer Rights and Interests, the Food Safety Law of the People's Republic of China and the Product Quality Law of the People's Republic of China and the Product Quality Law of the People's Republic of China and the Product Quality Law of the People's Republic of China and the Product Quality Law of the People's Republic of China and the Product Quality Law of the People's Republic of China and the Product Quality Law of the People's Republic of China and the Product Quality Law of the People's Republic of China and the Product Quality Law of the People's Republic of China and the Product Quality Law of the People's Republic of China and the Product Quality Law of the People's Republic of China and the Product Quality Law of the People's Republic of China and the Product Quality Law of the People's Republic of China and the Product Quality Law of the People's Republic of China and the Product Quality Law of the People's Republic of China and the Product Quality Law of the People's Republic of China and the Product Quality Law of the People's Republic of China and the Product Quality Law of the People's Republic of China and the Product Quality Law of the People's Republic of China and the Pione China and the Pione China and the Pione China and Pione China

We actively maintain the quality of goods and services, particularly the quality control of goods at the pre-sale stage and during sale. At the pre-sale stage, we have formulated the Supplier Management System, under which certificates and invoices are requested to ensure the product quality meets the standards. During sale, we conduct quality inspection over goods already on shelves or to be put on shelves in order to ensure their quality and safety are up to standard. On-site management personnel are responsible for conducting sampling inspections of products on sale on a weekly basis to prevent problematic goods from selling in the market and ensure that all goods sold in the Teemall Department Store can be safely consumed by our customers.

Teemall Department Store distributes electronic customer satisfaction questionnaire by means of on-site scanning of QR codes to collect scores and opinions from customers. It covers 13 items such as ancillary facilities, shopping environment and service quality. We have also established the work procedures for customer complaints in accordance with Sales Management System Manual of Teemall Department Store and explicitly stated the processes of customer complaints handling and requirements on employee's services. After receiving complaints from customer, relevant departments are required to submit a customer complaint report for review and improve service quality.

In 2020, Teem Group received one tenant complaint and 225 consumer complaints, with an overall customer satisfaction rate of 95.48%. We have followed up on relevant complaints and taken timely corrective actions on valid complaints, achieving a resolution rate of 100%.

### Hotel Ownership, Operation and Management:

The Hotel Management Company has been in strict compliance with national laws and regulations and industry regulations such as the Industry Code of Tourist Hotels in China and Star Rating Standard. It has also issued and implemented several internal policies such as the Internal Guidelines for Hotel Pricing Management System and the Service Quality Management Regulations. Up to now, six hotels owned or operated by the Hotel Management Company have obtained the ISO 9001 quality management system certification. Moreover, we have prepared the Manual for Food Safety in accordance with ISO 22000 Standard, established and maintained a sanitary and safe production procedure to fully comply with relevant requirements of customers and laws on food safety. In order to ensure that our hotels can provide a safe and comfortable environment, we conduct regular hotel floor patrols and cross-checks on a daily basis. It ensures that all safety management work is carried out in an orderly manner and provides our guests with an ideal staying experience.

Meanwhile, it is our responsibility to safeguard the information security of our members. We prevent our internal staff from leaking consumer information by adopting stringent information security measures, applying account passwords on our information systems and through various access controls, thereby safeguarding the privacy of all members. We store our guests' data in the intranet and keep strengthening the system security management through technological upgrade. When customers register for membership through our official website or at the hotel reception, their personal information will be directly transmitted to Central Reservations System (CRS) via Property Management Systems (PMS) and undergone unified encryption. In addition, we strictly comply with the principle of customer data confidentiality and manage the information access rights of employees. Staff must apply for approval from the information department of the Hotel Management Company before requesting the CRS technical service company to extract data, with a view to effectively preventing membership information leakage.

We continue to improve the security level of our PMS system. During the year, the PMS systems of our eight hotels were upgraded and switched from localised PMS to cloud-based PMS. We also promoted the integrated development of our PMS system and enhanced our information security system. These measures, coupled with the adoption of a white list and strong password, enable us to prevent any third-party service companies from leaking customers' personal information. In 2020, there were no information security incidents relating to the Hotel Management Company. We will continue to closely monitor and regularly check the operation of our network and website, strengthen management and prevention of information security incidents so as to safeguard consumers' information security in an all-round manner.

In order to provide comprehensive customer services, the Hotel Management Company launched a WeChat application in 2020 and developed new customer functions based on marketing requirements, including reward points for cashback, discount coupons, rebate coupons etc. It helps improving marketing functions on the client side and providing a more diversified customers service experience.



We value feedback and recommendations from each customer and we have a customer complaint mechanism in place. Upon receiving customer complaints, our staff on duty will timely address customer demands within their capacity, report to their superior and handle the complaint properly according to the instructions. They will make relevant arrangement in response to the client as soon as possible. For complaints lodged by customers on our online platform, the sales department will forward them to corresponding departments based on the contents to conduct a thorough investigation and take corresponding remedial and corrective measures. During the year, we received no complaints from our customers.

In addition, we monitor and maintain regular tracking of customer satisfaction using big data provided by Jointwisdom. We conduct comprehensive satisfaction surveys to manage the customer satisfaction of each hotel on a monthly basis and track our customer satisfaction and feedback continuously. By collecting online reviews from guests, we investigate their accommodation experiences at our hotels and ensure that the surveys are true, valid and timely. The information collected will be consolidated with the Guest Satisfaction Survey (GSS) data for statistical analysis in our system to improve service quality. During the year, the Hotel Management Company recorded a customer satisfaction score of 92.23, 0.94 point higher than that of the previous year.

### Road and Bridge Operations:

GDH Highway is committed to maintaining road traffic safety and smooth traffic flow for the purposes of safeguarding the lives and properties of road users. To achieve the objective of "preventing congestion and ensuring smooth traffic", we have formulated a work plan and emergency rescue plan for road reconstruction projects. Relying on the joint working platform, we established the "Traffic Police, Highway and Corporate" joint coordination and command centre. The traffic police, highway operation staff and the corporate join efforts to undergo inspection at staggered shifts and maintain road traffic order. We invested RMB2.48 million in appointing special road barrier removal services to stand by for 24-hour emergency rescue, along with 7 emergency stations to improve the ability to prevent and respond to highway emergencies. In addition, GDH Highway regularly conducts various emergency drills and joint safety inspections. Our "Service Areas Management System" stipulates that we must conduct 2 joint supervised inspection every year with local departments for public security, fire services, food and drug. It ensures that the public safety, food quality and operation services in the service area are up to the relevant standards and provides a safe and quality environment for the public and road users. At the same time, we provide accident handling training sessions for our employees to continuously raise their awareness of maintaining road safety and implement the safety production policy of "safety first, prevention prioritised with comprehensive governance".



On top of strict implementation of laws and regulations and industry requirements, GDH Highway has been actively setting the benchmark against local operational management inspection standards and continued to improve the standard of maintenance management and promote refined management in accordance with the "Implementation Plan for Creating Maintenance Management Demonstration Roads". During the year, we continued to promote new construction techniques and technologies. We applied the road grouting and stabilizing reinforcement technology to treat designated slabs, while the pre-stressed carbon fiber plate reinforcement as a new technology is adopted for bridges. The above new construction techniques can effectively treat the void bottom of road slabs to enhance the load bearing capacity of bridges.

51



### Case Study: Implementation of Asphalt Pavement Reconstruction Project on Xingliu Expressway

GDH Highway invested RMB1,351 million in the Asphalt Pavement Renovation Project of Xingliu Expressway to improve the service level of highway traffic in a comprehensive manner. We enhanced the quality and efficiency of the project ahead of schedule, established clear road signs for nearby and remote destinations, and launched multi-dimensional publicity campaigns. It took only 261 days to complete the major construction work of nearly 100 kilometers. We shortened the construction period for this project significantly and minimised the impact of the construction works on public transportation.

In Guangxi, the Xingliu Road Reconstruction Project has adopted the traffic organisation method for the first time, in which "one side of the entire route will be closed while the other side will serve as a one-way lane". During the diversion period, the road traffic of Xingliu Expressway remained stable and the four indexes of traffic congestion and traffic accidents in 2020 decreased significantly by 50%, 50%, 70.59% and 73.02% respectively, as compared with the same period in 2019.

The project has been recognised and commended by various parties, including the Department of Transportation of Guangxi Zhuang Autonomous Region, the Public Security Department of Guangxi Zhuang Autonomous Region and Yulin City Transportation Bureau. The Department of Transportation of Guangxi Zhuang Autonomous Region has even considered the traffic organisation method of the project as an innovative pilot scheme for traffic organisation management during highway reconstruction and expansion in Guangxi and as a reference model for related projects.



In addition, we continued to optimise our monitoring and control management by implementing a centralised monitoring and control management model on toll collection, which has improved the coordination of daily operations and management as well as business execution. In 2020, we carried out a maintenance plan for the "three major systems" of toll collection, which ensures all major systems are operating stably and reliably and we achieved zero major liability incidents affecting toll collection.

To provide clear guidelines for handling complaints, we have formulated the Complaint Reporting and Handling Management System so that we can identify the responsible person timely upon receiving a complaint, and follow up and communicate with the complainant to ensure that the complaint is properly resolved. Meanwhile, we fully tap into the functions of the public commuting service platform to effectively enhance the bulletin service of highways and the emergency handling capabilities.

During the year, we received a total of 37 service suggestions, handled 682 business consultations and 334 instant messages, deployed 653 rescue operations with a handling rate of 100%. There were no valid complaints throughout the year.

# 5.5

### **CONSERVING BIODIVERSITY AND ECOSYSTEM**

Biodiversity represents the foundation for environmental balance and human survival and development. The Chinese government has attached great importance to the protection of the ecological environment and ecosystem safety and is fully committed to safeguarding biodiversity. Since signing and acceding to the international Convention on Biological Diversity in 1992, the Chinese government has been establishing a number of biodiversity protection plans, including the "China Biodiversity Conservation Strategy and Action Plan", to further improve the administration of ecological civilisation. In this regard, the Group actively implements national and regional biodiversity protection and management plans, enhances its ability to respond to biodiversity protection, contributes to ecological health and protection and makes its best efforts to reduce damages to the ecosystem during business operations.

### **ECOLOGICAL CONSERVATION PRINCIPLES**

The Group recognises the vital importance of biodiversity conservation to the sustainable development of the Group's business. Following the revision of the Biodiversity Protection Policy of Guangdong Investment Limited, we are committed to adopting various means to maintain the ecological balance and biodiversity, while further enhancing management's engagement in biodiversity management with constant investment in resources to promote the conservation and restoration of environmental ecology and biodiversity.

We have integrated biodiversity conservation into the construction and operation stages of projects involved in each business segment and encourage each business segment to carry out biodiversity assessments for relevant projects to prevent adverse impacts brought by construction and operation activities on biodiversity, endangered species and habitats. At the same time, our publicity campaigns and training activities targeting biodiversity conservation have raised the awareness of employees, contractors and other stakeholders towards the importance of biodiversity conservation.

### **RESPONSIBLE COOPERATIONS WITH GOVERNMENT**

The Chinese government continues to improve the ecological civilisation system and enhance the ecological environmental management. As a socially responsible enterprise, we fully support and comply with those government policies which aim to protect the ecological environment. To strengthen the protection of ecological environment and resources of reservoirs, Yue Gang Water Supply jointly issued the Several Opinions on the Establishment of Joint Coordination Mechanism for the Protection of Ecological Environment and Resources of Shenzhen Reservoirs (Trial) with 10 units, including Luohu District Procuratorate, Shenzhen Drinking Water Protection Management Office, Luohu District Ecological Environment Bureau, Luohu District Water Bureau and Donghu Subdistrict Office to ensure that each unit plays its respective role in protecting water sources of Shenzhen reservoirs and effectively carry out the supervisory responsibilities for protecting the reservoirs' ecological environment.



At the same time, we actively cooperate with local governments to safeguard the ecology of drinking water sources against potential damages by unscrupulous people. We hold regular meetings with the government to discuss and update the work on water source protection and conduct regular on-site inspections and establish real-time communication groups to communicate the conditions of the water source. In addition, we have installed physical and biological isolation and barriers outside reservoir areas to safeguard the safety of drinking water in Shenzhen and Hong Kong.

### ECOLOGICAL ASSESSMENT AND REMEDIATION

We make every effort to minimise environmental impacts of our business operations and are committed to managing and restoring the ecological environment. Prior to the commencement of a new large-scale project, we first conduct the environmental and ecological impact assessment, allowing us to analyse possible negative impacts of such a project on the local ecosystem, biodiversity and the livelihood of indigenous residents, while establishing specific mitigation plans based on the results to protect the ecology and natural habitats at source as much as possible. Besides integrating the cultural customs of local residents into the plant design, we actively take various measures to protect and restore the ecological environment against damages from construction and operation activities and improve the biodiversity of the surrounding environment by growing, for instance, green vegetation.

We adopt a science-based approach to assess ecosystem diversity and biodiversity. We have been working with the Research Center of Hydrobiology of Jinan University for many years to evaluate and improve the water ecology of the Dongshen Water Supply Project alongside the collaboration on water ecology monitoring. Based on the monitoring situation, we have conducted dynamic evaluation of the water ecology with corresponding improvement measures taken, such as ecological fish farming and water quality dispatch. In addition, we have cooperated with South China University of Technology on the project headed "Ecological System Health Evaluation and Ecological Restoration Measures Research for Lakes" during the year, which is aimed at developing a technical system for evaluating the health of the water ecological system in urban landscape lakes.

We actively improve the technical standard of sewage treatment through scientific research and technical methods, which integrate the results of scientific research into business scenarios and greatly improve the operation of water resources segment and the technical standard of sewage treatment. In addition, prior to the discharge of sewage, we strictly ensure that sewage has been treated according to stringent procedures to align water quality with the discharge standard, thereby reducing the damages to the ecology of water bodies.



### Case Study: Construction of New Shanwei Full Underground Sewage Treatment Plant in 2020

The first phase of Eastern Shanwei Water Purification Plant and Supporting Pipeline Network Project represents the first full underground sewage treatment plant project in the water resources segment. Major structures are located underground with only ventilation towers, daylight windows and complex buildings above the ground, while the rest are afforested landscapes. The landscapes are free from damage and fully integrated into the local environment. In addition, the sewage treatment facilities are deployed underground so that odour and noise generated during the production process will not have a negative impact on the surrounding environment.



### JOINT RESEARCH AND DEVELOPMENT

We continue to work with various educational institutions by signing service cooperation agreements to carry out joint science research projects in a bid to improve the ecological environment and water quality with innovative technologies.

# Case Study: Cooperation with The Chinese University of Hong Kong, Shenzhen and Jinan University on the Development and Application of Unmanned Surface Vessels

Yue Gang Water Supply has developed an integrated unmanned surface vessel for sampling and monitoring with the Chinese University of Hong Kong, Shenzhen and Jinan University. By developing a reservoir algae bloom risk classification and early warning model, Yue Gang Water Supply has successfully researched and developed an unmanned surface vessel for algae removal, which realise the closed-loop management of "water ecology monitoring — early warning model — algae removal operation" and intelligent water ecology management, resulting in more effective enhancement of water quality management efficiency.



Unmanned Surface Vessel for Sampling and Monitoring



Unmanned Surface Vessel for Algae Removal

# OUR PERFORMANCE ON SUSTAINABLE DEVELOPMENT

### UPHOLDING STRINGENT BUSINESS ETHICS AND INTEGRITY STANDARDS

The Group operates with great probity by upholding the highest standards of business ethics and integrity. With reference to the Basic Standards for Internal Control of Enterprises, an internal document formulated by Guangdong Holdings on the Group's internal control system, with a focus on "three flows and three points" (namely flows of goods (logistics), fund flows, and information flows; key points, risk points and control points), we have optimised our corporate policies and procedures and established "rigid constraints". We practice stringent and multi-dimension management over our internal control, comprehensive budgeting, production safety, and the "three systems" management (i.e. quality, health and environmental management systems) in order to integrate comprehensive risk management with our business operations seamlessly. We regularly conduct analyses on the effectiveness and rationality of our risk management strategies and take into account the actual situation for revisions and improvement. All such work aims to ensure that we enhance our execution capability and overall management standard on a continuous basis.

Having evaluated our past performance, the Group facilitated the discussions and communication on corporate discipline inspection and supervision, striving to enhance its overall performance on integrity building. By cultivating a culture that goes against corruption and advocates and encourages honest practices and speak-up culture, the Group strengthens its guidance so that all stakeholders can realise the importance of combating corruption and upholding integrity for the Group's business growth and reputation.

According to the report of a third-party rating agency, Institutional Shareholder Services (ISS), during the year, the Group was not observed of being involved in any severe controversies or incidents relating to the UN Global Compact Principles on human rights, labour, environment and anti-corruption. Moreover, there is no ongoing or concluded lawsuit filed against the Group or its employees in relation to corruption.

### **OPERATING WITH INTEGRITY AND COMBATING CORRUPTION**

The Group upholds the governance philosophy of high standards and transparency and has put in place an anticorruption policy based on the principles of integrity and accountability. We ensure strict compliance with national laws and regulations in every process of our operations, including the Anti-Corruption and Bribery Law of the People's Republic of China, the Supervision Law of the People's Republic of China, the Civil Code of the People's Republic of China, the Company Law of the People's Republic of China, the Anti-monopoly Law of the People's Republic of China and the Anti-unfair Competition Law of the People's Republic of China. We also review our internal control and risk management systems according to the latest regulatory requirements.

In addition to updating the Anti-corruption Policy of Guangdong Investment Limited, we have strictly implemented the List of Objectives and Assignments for Discipline Inspection and Supervision and other internal control documents, which details the work items, objectives and assignments in relation to combating corruption and advocating integrity in a bid to put into practice the anti-corruption system. According to the Internal Control Procedures Manual of Guangdong Investment Limited, the Group's Internal Audit Department is responsible for the supervision and inspection of compliance with business ethics within the Group and examining the reasonableness of the check-and-balance mechanism among different departments and positions before submitting relevant policies and internal control procedures to the management for further review.

Furthermore, we are committed to providing regular training on anti-corruption for our employees to educate them and enhance their awareness against corrupt practices, thereby ensuring that they will not engage in any act that harms the interests of the Group and relevant stakeholders. The Group has formulated the Code of Business Ethics for Employees which details the acts that constitute corruption or unethical practice and clearly sets out the procedures for handling conflicts of interest and regulates the conduct of employees such as anti-competition, insider trading, and accepting or offering gifts, favours or hospitality.

To further beef up anti-corruption education and enhance employees' awareness on integrity and self-discipline, GDI invited its directors and headquarters-based employees to attend anti-corruption training delivered by the Independent Commission Against Corruption (ICAC). Through the lectures on anti-corruption, corporate and business ethical standards and case studies, the participants were refreshed with knowledge on laws and regulations and relevant information about code of conduct. We hold ongoing dialogue with key leaders and newly appointed senior management of the Group to clarify their duties and matters for attention in combating corruption. We also give admonitory talks to urge and require employees to perform regular reviews and take corrective actions for minor breaches.

### Water Resources Segment:

As for the water resources segment, the principal operational arm of the Group, we have put in place rigorous supervisory measures and established comprehensive supervision and audit management systems. In light of the new regulatory provisions, the requirements of the Group and the needs for water business management, during the year, the water resources segment has revised and improved the Internal Audit Management Measures to ensure that audit work is conducted on an appropriate basis and in accordance with regulations. In addition, we further clarified in the Measures on Comprehensive Risk Management the duties and responsibilities of the team in charge of comprehensive risk management. We have implemented a set of stringent regulations and documents, including the Management Measures on Supervision and Implementation, the Management Measures on Economic Responsibility Audit, the Management Measures on Discipline Inspection and Supervision and the Work Guidelines on Supervision and Discipline Execution to further enhance the standards of business ethics and practices. The water resources segment has also proactively piloted the Accountability Measures for Irregularities in Corporate Operations and Investment, which aimed to lay sound foundation for establishing an integrated system and working mechanism on seeking accountability for non-compliance and thereby ensure regulatory compliance in daily operations.

The water resources segment further strengthened inspection and self-assessment of internal controls during the year. Led by the risk control team, a joint taskforce comprising leaders of our water companies and relevant employees of our headquarters was formed to conduct annual on-site inspections on the internal control management of 23 subsidiaries that had internal control systems in place and devised rectification measures for the issues identified during the inspections. Moreover, the water resources segment also arranged annual self-assessment on internal control for the year to identify deficiencies in a timely manner and put forward proposals for improvement with a view to underpinning the operation and management of the internal control system. With reference to the findings from comprehensive reviews on risk control systems conducted in 2019, the segment monitored the addition and revision of policies of its subsidiaries to ensure sound systems are in place, which serve as the basis for the first line of defence in risk management.

In order to ensure compliance of our business operations, nearly 370 employees at different levels in the water resources segment have received training on internal control and compliance. Furthermore, we organised our water companies to attend risk control and management training and arranged key employees of these companies to join in our internal control inspections to enhance their awareness and skills on risk control and management. Further, we arranged our risk control specialists to attend the risk control training courses provided by the National Accounting Institute, and paid close attention to any updates on risk management and internal control standards and practices issued by authoritative organisations and provided training and relevant information to our subsidiaries to encourage their participation.

### Property Investment and Development and Department Store Operation:

Teem Group has revised its Work Regulations for Discipline Inspection and Supervision, Work Guidelines for Supervision and Discipline Execution, and Implementation Rules for Reminder, Enquiry Letter, Admonition, Encouragement and Integrity Interviews and has piloted the Accountability Measures for Irregularities in Corporate Operations and Investments. Such revision and measures aimed to further specify the duties and main tasks regarding discipline inspection and internal audit, detail the implementation of conversational inquiries, set out the requirements for discipline execution and accountability and upgrade the standard procedures for discipline inspection, finance, audit and risk control, thereby enhancing the efficiency of supervision on an ongoing basis.

Teem Group conducts routine audit on its subsidiaries and monitors and urges the rectification of issues identified to eliminate any management loopholes. In addition, we organise internal and external training activities and review audit training regularly to improve the professional skills of our audit staff and, in particular, deepen their understanding of our business so that they can provide better audit services for our operations.

### **Hotel Ownership, Operation and Management:**

During the year, the Hotel Management Company has formulated the Implementation Rules for Supervision on Tendering and Purchasing and the Implementation Rules for Reminder, Enquiry Letter, Admonition and Early Warning, revised the Work Guidelines for Supervision and Discipline Execution, the Rules for Whistleblowing via Petition Letters for Discipline Inspection and the Provisions on Signing Integrity Responsibility Statement and has piloted the Accountability Measures for Irregularities in Corporate Operations and Investments, the Internal Audit Management Measures and the Management Measures on Economic Responsibility Audit. These rules stipulate the requirements on audit works and standardise the procedures and set out rigorous accountability provisions. In addition, we require senior management members such as the chairman, general manager, department heads and staff holding key positions to sign the Integrity Responsibility Statement to reduce the integrity risk in business operations.

In addition, the Hotel Management Company formulates and implements internal audit plan and discipline inspection scheme every year. Internal audit is conducted on major construction projects, tendering and bidding process and routine procurement, property leasing and financial management. Issues identified in internal audit and inspection work are addressed through appropriate follow-up actions and supervision. During the year, the hotel management team has completed 205 compliance reviews on "Key Decision-making, Key Leaders Appointment and Dismissal, Arrangement of Key Projects and Utilisation of Considerable Funds ( $\equiv \pm - \chi$ )" and 62 compliance reviews on tendering, purchasing, engineering projects and other key projects.

### Case Study: Discipline Education and Training Activities of the Hotel Management Company

In 2020, the hotel management team of the Group launched a series of discipline education activities for leaders and employees, which include studies on guidelines and principles on building integrity and fighting corruption to enable them to understand the requirement of corruption-free operations at group level. A total of 375 employees and leaders from the headquarters of the Hotel Management Company and hotels under its management have participated in the activities. Besides, the hotel management team scheduled other integrity training sessions and tests regarding a dozen of key regulations for 200 managerial employees across all functional departments.



### Energy Projects:

Zhongshan Energy strictly complies with policies such as the Work Guidelines for Supervision and Discipline Execution of Zhongshan GDH Energy Co., Ltd., the Work Guidelines for Integrity Systems Development and Integrity Dialogues, Cautionary Talks and Admonitory Talks of Zhongshan GDH Energy Co., Ltd., the Administrative Measures on Reception of Zhongshan GDH Energy Co., Ltd. and the Management Standards for Reimbursement of Personal Expenses for Business Purposes of Zhongshan GDH Energy Co., Ltd. and raises employees' awareness of integrity in discharging their duties through discipline inspection and training sessions so as to prevent non-compliance risks. During the year, Zhongshan Energy invited the judicial experts from Zhongshan Intermediate People's Court and lawyers specialising in the energy sector to give lectures on integrity education to staff members at key positions. These special cautionary education class allowed staff to experience a real life scenario, which effectively alerted them against any corruption practices. Furthermore, 16 staff at key positions have participated in group discussions on building integrity and over 50 staff at key positions signed the Integrity Responsibility Statement. Meanwhile, Zhongshan Energy has published the Embracing Integrity (《清風揚正氣》) journal to share the essentials of "honesty and uprightness" with all its employees.

### **Roads and Bridges:**

GDH Highway has established the Requirements on Discipline Inspection and Supervision for Guangxi GDH Highway Co., Ltd. and the Accountability Management Measures of Guangxi GDH Highway Co., Ltd. and other policies and internal control manuals, and set up a working group for discipline inspection and supervision led by the Discipline Inspection and Legal Affairs Department. The working group is responsible for routine disciplinary inspection and supervision, with the aim to monitor corruption risks and provide holistic process control for key activities and sensitive positions. Having formulated the Internal Audit Management Measures of Guangxi GDH Highway Co., Ltd. in 2020, GDH Highway further regulated internal audit management in respect of toll collection, road administration and maintenance, achieving a more comprehensive system for internal control and risk prevention.

### WHISTLE-BLOWING MECHANISM AND PROTECTION

GDI has put in place group-wide whistle-blowing policies and procedures to encourage and urge its staff to report any suspicion of dishonest, unethical or illegal acts. Any such report will be handled in a confidential manner to protect whistleblowers in accordance with the laws and regulations of the region where the entity operates, and the identities of whistleblowers will not be disclosed without his/her consent. Upon receipt of the report, the case will be referred to the Internal Audit Department of the Group for carrying out fair and independent investigation and evidence collection and then be directly submitted to the chairman of the Board or the Audit Committee to keep confidential the identities of the whistleblowers. During the year, there were no disciplinary violations or cases filed for the Group's business segments.

### Water Resources Segment:

With "standardised, institutionalised and refined practices" as its goal, the water resources segment carefully processes the reporting and accusation from the public and verifies the facts concerning the reported case through timely verification and processing. Attaching great importance to all cases reported, the Discipline Inspection and Supervision Department endeavours to conduct timely and in-depth verification and tackles issues arising from communication with internal department(s) or external institutions. Moreover, the company has set up measures to protect its whistleblowers by ensuring the confidentiality of their particulars and strictly forbidding retaliation against them.



61

### Property Investment and Development and Department Store Operation:

Teem Group has put in place the Rules for Whistleblowing via Petition Letters for Discipline Supervision, the Work Guidelines for Supervision and Discipline Execution and other policies to standardise the process for handling whistleblowing and complaints and clarify the provisions for protecting whistleblowers, including the requirements that the personal information of the whistleblowers and the contents of whistle-blowing shall be kept confidential and the particulars of the whistleblowers should not be disclosed without the whistleblowers' consent. In addition, we collect whistleblowing information via various channels, including Teem WeChat official account and official website which remain open during holidays. Dedicated personnel are responsible for making suggestions on how to handle the matters in strict compliance with relevant policies, coupled with level-by-level review and timely processing to achieve "zero backlog" of reported cases.

### Hotel Ownership, Operation and Management:

To standardise the procedures for whistleblowing via petition letters for discipline inspection, the Hotel Management Company has taken its own circumstances into account when formulating and issuing the Rules for Whistleblowing via Petition Letters of Guangdong International Hotel Management (China) Limited based on the Rules for Whistleblowing via Petition Letters for Discipline and Supervision of Guangdong Holdings Limited so as to establish publice whistleblowing channels such as hotline and email address published on its official website. Cases reported are subject to strict verification, processing and submission to the Hotel Management Company according to relevant requirements with verification results provided to persons concerned in a responsible and timely manner.

### Energy Projects:

To facilitate employees to report any breach of disciplines or laws or other related issues, Zhongshan Energy has published its whistleblowing hotline, email address and postal address on its bulletin board and internal magazines to ensure various complaint channels are readily accessible.

### **Roads and Bridges:**

GDH Highway has improved its whistleblowing mechanism and formulated the Guidelines on Handling Complaints and Whistleblowing to strictly regulate the management of information from whistleblowing hotline and email and fully tapped into the function of the customer service platform hotline "96333" to enable supervision by the general public. Moreover, GDH Highway specifies in its internal guidelines the whistle-blower protection mechanism, pursuant to which, the name of a whistleblower and the entity at which the whistleblower serves as well as the content reported shall be kept confidential. Rewards will be given to whistleblowers based on their contribution to rectification of the irregularities reported.

# 6.2

### **EMBRACING AND PRESERVING THE ENVIRONMENT**

Mankind's daily and economic activities are inextricably linked to the natural environment and are interdependent on each other. GDI always regards green operation as its fundamental responsibility and core philosophy. With the Sustainable Development Policy of Guangdong Investment Limited in place, GDI further promotes its sustainability efforts to minimise its operational impacts on the environment and natural resources. Moreover, we strictly comply with relevant laws and regulations as well as environmental standards in the course of our operations. Aligning with the national direction of environmental protection, we established environmental protection initiatives in each business segment according to its business characteristic to reduce sewage, waste and atmospheric pollutants, achieving our ultimate goal of clean production and effective use of resources and fulfilling our responsibilities as a leading green corporation in the industry.

### **ENVIRONMENTAL MANAGEMENT SYSTEM**

As an integral part of the Group's business operations, we maintain outstanding environmental performance in respect of products and services with a keen eye on the environmental impact of our operations. The Group strictly complies with major environmental protection laws such as the Environmental Protection Law of the People's Republic of China, the Energy Conservation Law of the People's Republic of China, the Energy Conservation Law of the People's Republic of China, the Energy Conservation Law of the People's Republic of China, the Energy Conservation Law of the People's Republic of China, the Law of the People's Republic of China on Prevention and Control of Atmospheric Pollution, the Law of the People's Republic of China on Prevention and Control of Water Pollution, the Law of the People's Republic of China on Prevention and Control of Water, the National Inventory of Hazardous Wastes (2021 Edition) and the Measures for the Administration of Environmental Surveillance. The Group has developed its overall environmental protection policy, under which specific policies and measures are put in place according to the actual operational situation of each business segment to continuously improve the management approach for eco-friendly production and operation. In addition, we have assumed our responsibilities for monitoring and managing projects and continuously promote awareness of green production internally.

### Water Resources Segment:

In addition to paying attention to core issues such as climate change, energy and emissions and water stress, the water resources segment is committed to improving the environmental sustainability of its business to ensure stable business development in the long run. We practice strict control over the policies, procedures and responsibilities through the implementation of our integrated management system that combines environment, quality and safety (the "three systems"). Based on the environmental management system under the "three systems", we carry out tasks in compliance with the ISO 14001 standard certification of the International Organisation for Standardisation. Following the requirements of certification agencies, we conduct regular review and devise improvement plans for Water Holdings and Yue Gang Water Supply as well as the subordinate water companies to maintain our water businesses at the international standard.

In addition, we exert extra efforts to raise environmental awareness at every operational level. Water resource risk management is introduced in subordinate water companies to detect the local environmental risks and associated hazards as early as possible so as to avoid substantial damage to the surroundings and our own operations. We identify environmental risks from time to time through a thorough investigation of five risk aspects, namely "corporate environmental risks", "environmental hazards in the course of production and operation", "organisational structure of the Company for environmental protection", "environmental accidents" and "corporate environmental protection focuses". Furthermore, we also conduct targeted analysis on projects for their performance on environmental risks such as energy and water consumption, sludge discharge, solid waste disposal and use of disinfectants to ensure no illegal activities in the production process and explore the potential for improvement.

We also strive to promote civilised construction for the surrounding environment and communities. We continue to monitor and alleviate the impacts on surrounding communities and environment during construction and operation, including noise and light pollution and waste. We have also introduced fog gun machines, water sprinkling equipment and car wash pool to reduce dust and conduct irregular inspections to enhance the living quality of the neighbouring residents.

### Property Investment and Development and Department Store Operation:

Teem Group has put in place an environmental monitoring and management system with well-defined responsibilities and standardised procedures and obtained the ISO 14001 environmental management system certification during the year. In the future, we will further implement reasonable and efficient plans and operational procedures to achieve environmental excellence. Thanks to the establishment of the system and the launch of operational process, we have enhanced the overall environmental management standards in a short period of time, and managed to heighten the quality as well as staff's awareness on environmental management, which to a certain extent facilitated our coordinated sustainable development both in economic and environmental aspects. In addition, we invite experts from time to time to offer training to our employees, sharing their experience in environmental management and control and assisting us in meeting work requirements of the system so that we could explore more possibility for improvement.

Besides, Teem Group considers environmental impacts in the building lifecycle, including building design and construction and pays close attention to the trend of green building development. In our property management business, we actively enhance the performance and conditions of facilities to reduce energy consumption and emissions. In the indoor environment of our properties, we have engaged a professional independent party to clean and sterilise each special exhaust system in the building, conduct relevant indoor air quality inspection covering bacteria, particulate matter and dust accumulation and obtained a qualified inspection report pursuant to the Hygiene Specification of Central Air Conditioning Ventilation System in Public Buildings.

During the year, we conducted a survey on environmental satisfaction of tenants and obtained a satisfaction rate of 95.36% (2019: 93.88%) on environment and 100% (2019: 97.70%) on greening, which were increased by 1.48% and 2.30% respectively compared to 2019. We once again fulfilled our commitment to customers and demonstrated our determination and efforts to improve our environmental performance on an ongoing basis.

### Hotel Ownership, Operation and Management:

The Hotel Management Company endeavours to improve its environmental performance and maximise the value for customers in the provision of quality services at its hotels. In accordance with environmental management standards, we have gradually established our environmental management system, with multiple measures including eco-friendly consumption, waste classification and treatment, energy conservation and emissions reduction put in place in our hotel operation. Such efforts are devoted to raise employees' environmental awareness and encourage them to set examples for others and communities to jointly build a better environment.

### Energy Projects:

Zhongshan Energy focuses its environmental management on three major areas, namely water conservation, energy conservation and waste management. To achieve high standard of routine environmental operation and management, Zhongshan Energy has formulated a number of environmental management rules and regulations, including the Supervision and Management Standards for Chemical Technology of Zhongshan GDH Energy Co., Ltd., the Supervision and Management Standards for Environmental Protection Technology of Zhongshan GDH Energy Co., Ltd., the Management Standards for Reporting Information on Exceeding Environmental Limits of Zhongshan GDH Energy Co., Ltd., the Solid Waste Management Standards of Zhongshan GDH Energy Co., Ltd., the Operation Rules for Centralised Control of Zhongshan GDH Energy Co., Ltd., the Operation Rules for Centralised Control of Zhongshan GDH Energy Co., Ltd., the Operation Rules for Chemical Use of Zhongshan GDH Energy Co., Ltd. to create positive and long-lasting environmental benefits.

We have also built a comprehensive system for treating sewage, exhaust and waste residues as well as a fully enclosed coal transportation system and enclosed coal yards in order to achieve centralised sewage treatment, integrated and efficient utilisation of solid waste and ultra-low emissions according to standards.

### Roads and Bridges:

GDH Highway makes every effort to minimise the impacts of its operations on the natural environment to deliver eco-friendly highways. Driven by such vision, we pay close attention to the surrounding environment of our roads, continuously improve the driving environment and set up a stable and long-term mechanism for greening and cleaning along our highway. In respect of soil and water conservation and site restoration of any construction project, we formulated detailed policies and measures to ensure compliance with applicable laws and regulations.

As for greening and cleaning along the highway, we have well-defined and specific management standards in place. We also strengthened training on daily maintenance for our workers to enhance their environmental awareness so as to achieve our long-term goal of improving the environment along our roads.



**Enhanced Highway Environment** 

**Highway Sound Barrier** 

Meanwhile, we continuously explore new approaches to reduce highway noise so as to avoid disturbing neighbouring communities and ecosystem. We keep monitoring the noise produced from road maintenance and renovation and from time to time engage independent third-party consultants to evaluate our noise reduction performance along the route. We would then adjust our strategy based on evaluation results to mitigate the noise impact.

### **EMISSION CONTROL AND REDUCTION**

GDI actively leverages the competitive edge of various business segments to help improve the ecological environment and reduce various emissions, including atmospheric pollutants, sewage and hazardous and non-hazardous waste through use of clean energy, improvement of production technologies and application of new technologies. Thanks to the efforts and strict control of each business segment, GDI and its business segments had no major pollution incidents or violations of relevant laws and regulations in the year; nor were they subject to complaints, fines or sanctions for major environmental pollution or violation of environmental regulations.

### Water Resources Segment:

Our water resources segment is responsible for the supply of clean water through its daily water supply operation, the process of which does not involve material environmental pollution or emissions. While our sewage business is responsible for treating sewage contaminated due to human activities. During the treatment process, the concentration of pollutants in water will be reduced to reach the national standard suitable for discharge. Moreover, we take effective measures to treat and control such indicators as chemical oxygen demand (COD) and ammonia nitrogen (NH<sub>3</sub>) concentration in water, coupled with real-time monitoring via online monitoring devices and other approaches to ensure the discharge complies with requirements and avoid the pollution of water sources and harm to public health. Up to the end of 2020, we have been engaged in 33 sewage treatment projects in 8 provinces in China, reducing COD and NH<sub>3</sub> by an aggregate of 36,644 tons and 4,247 tons respectively.

### **Property Investment and Development and Department Store Operation:**

The major emissions of Teem Group are solid waste and sewage generated by property construction works, catering tenants and daily operations of its properties. In line with the regulations such as the Management Regulations for Construction Waste of Guangzhou, the Management Regulations for Classification of Domestic Waste and the Management Measures for Food Waste and Waste Grease, we formulated the Waste Classification and Treatment Procedures of Teem, the Implementation Plan for Domestic Waste Classification of Teem, the Waste Classification Management Policy, the Operation Code of Domestic Waste Classification and other policies to control waste generation. In addition, we have engaged professional third parties to collect and treat wastes to ensure proper disposal and avoid environmental damage.

To respond to the requirements of the government authorities, we implement waste classification and separation and under the guidance of the leading group for waste classification, incorporate waste reduction measures into every process of our business operations. At the same time, we continuously improve the understanding and awareness of our staff and customers on waste classification through publicity and training activities. Such measures include adding bulletin boards and demonstration sites for waste classification in our shopping centres. Furthermore, during daily operation, maintenance and facilities modification, we have prepared corresponding green management plans in relation to procuring products and materials so as to avoid procuring and using materials that would cause serious environmental hazards in construction operations and dispose of hazardous wastes such as mercury lamps. In 2020, Teem Plaza recorded a 100% recycling rate for non-hazardous waste, representing the rate treated by third-party agencies upon classification thereof.

In addition, in compliance with the requirements imposed by the water authority of Tianhe District, we separated the discharge of rainwater and sewage through a diversion pipe network on a trial basis and have undergone assessment during the year. After inspection and acceptance by a professional technical agency, our efforts in sewage treatment were recognised by the government agency which presented plaques engraved with "Qualified Entity of Guangzhou in Sewage Discharge" to Teem Plaza and Teem Tower.

### Botel Ownership, Operation and Management:

The Hotel Management Company seeks to meet the regulatory requirements in the areas of cooking oil fumes and other air emissions by regular equipment check, repair and maintenance. We also proactively reduce waste from the source. Since 1 December 2020, we ceased to provide the "6-piece toiletry set" at hotel rooms to advocate eco-friendly travel and avoid wastage. Moreover, we initiated practices of waste classification by placing waste separation bins at hotel lobbies, guest rooms and office buildings. The Hotel Management Company has put in place a responsibility management system, set up teams to take charge of waste sorting in the hotels and specified the duties of each unit. Notice and signs of waste sorting are put up in designated locations, listing out sorting requirements, time for waste collection and information on the person in charge.

In order to enhance the efficiency of waste sorting and recycling, we arranged all staff to participate in training and incorporated waste classification knowledge into our induction training. Our appraisal mechanism also encompasses employees' performance in waste classification practices and periodic comprehensive check is carried out to ensure positive results in waste classification.

### **Energy Projects:**

On top of meeting the standard of factory construction, Zhongshan Energy has been working to control the density of air pollutant emissions from its coal-fired generation units in strict compliance with the Emission Standard of Air Pollutants for Thermal Power Plants and the Notice on Issues concerning the Implementation of Tariff Support Policies for Coal-fired Power Plants with Ultra-Low Emissions. As a result, Zhongshan Energy has consistently met the emissions limit for coal-fired power generation units, with its emission density of smoke and dust, sulphur dioxide and nitrogen oxides below 5 mg/Nm<sup>3</sup>, 35 mg/Nm<sup>3</sup> and 50 mg/Nm<sup>3</sup> respectively when the oxygen content meets the standard of 6%.

Pollutants	National Standards for New Power Plants <sup>1</sup>	"Ultra-low Emissions" <sup>2</sup>	Zhongshan Energy
Sulphur dioxide (SO <sub>2</sub> , mg/Nm³)	50	35	Approximately 14
Nitrogen oxides (NO <sub>x</sub> , mg/Nm³)	100	50	Approximately 45
Smoke and dust (mg/Nm <sup>3</sup> )	20	5	Approximately 3

#### Notes:

- 1. The National Standards for New Power Plants is derived from the special emission limits under the Emission Standard of Air Pollutants for Thermal Power Plants (GB13223-2011);
- "Ultra-low Emission" is derived from the Notice on the Proposal on "Comprehensive Implementation of Ultra Low Emission and Energy Efficiency Improvement for Coal-Fired Power Plants" Forwarded by the Office of Environmental Protection of Guangdong Development and Reform Commission (Yue Fa Gai Neng Dian [2016] No.75).

We adopted the wet limestone-gypsum dual-loop process for flue gas desulphurisation to meet the required standards. For denitrification, we introduced advanced SCR system. The efficiency of these two systems in terms of reduction of sulphur and nitrate content in flue gas reached 99.19%/99.25% and 78.44%/81.62% respectively. To reduce the dust content of flue gas, we introduced four electric bag dust collectors and wet electrostatic precipitator systems so as to reduce air pollution. To ensure consistency of our emissions performance, we engage a third-party testing agency every quarter to monitor and test the content of mercury, ammonia and particulate matter and blackness in exhaust gas, as well as factory noise, circulating cooling water and domestic sewage. The main pollutants from coal-fired boiler flue gas, including smoke and dust, sulphur dioxide and nitrogen oxides are monitored online. The monitoring results showed that we met the national standards.

In addition, we have formulated procedures and standards for waste disposal. We divide waste storage areas and conduct regular cleaning. Waste with recycling value will be put up for sale through bidding, inquiry and price comparison in accordance with relevant requirements of the company and upon evaluation by valuers. With respect to the generation, collection, transfer, storage, utilisation, treatment and disposal of hazardous wastes, we adopt the following procedures:

- 1. In line with the standards for hazardous waste management, special warehouses are built to store hazardous waste, with safety signs posted and anti-corrosion and anti-leakage measures adopted;
- Hazardous wastes are classified and stored according to their hazardous level. The documents describing the type, quantity, flow, storage, recycling and disposal of hazardous wastes are kept for documentation purpose; and
- 3. Reporting and registering hazardous wastes in strict compliance with the laws and regulations and engaging third parties with appropriate qualifications to transport and dispose the waste legally.

### **Roads and Bridges:**

The waste generated by GDH Highway mainly includes waste materials from the replacement of broken road slabs, waste guardrails, columns, household garbage and wastewater. We have developed an environmental management system in strict compliance with the national laws and regulations for various emissions and wastes.

As for pavement construction projects, we require concrete mixing plants to be equipped with three-level sedimentation tanks for the treatment of wastewater discharged during the construction process, with regulations and rules in place to strictly forbid discharge of untreated sewage to protect the surrounding water sources.

As for waste management, we insist on recycling and reusing items with value to minimise waste. Construction waste generated from the replacement of broken road slabs will be offered to neighbouring residents along the route by the contractors free of charge to build simple retaining structures such as tractor roads, village roads and road drains. We also continue to follow up on how the construction waste is utilised, supervise the contractors to ensure that the solid wastes are recycled or disposed of in a safe and standardised way. For the treatment of metal materials such as waste guardrails and columns, we have entered into agreements with waste purchasers for regular recycling to reduce pollution from hazardous metals.



### **Case Study: Yunbiao River Embankment Project**

As the downstream area of the Yunbiao River Bridge has been washed by the river over the years, the adjacent tractor roads and embankment are often damaged. GDH Highway proposed a plan to restore the tractor roads, protect the farmland and restore the drainage function of the river by using gabions for protection, cleaning riverbed silt and dredging the sludge. According to the plan, waste concrete debris was also used as filling material for gabions to make full use of construction wastes generated during the replacement of broken road slabs. A total of approximately 10,000 m<sup>3</sup> of construction wastes were utilised in this project.



Water resources (*)           COD emissions         tons         4,270.75         2,921.00         2,150.07         2,242.47           COD reductions         tons         36,644.23         25,888.00         14,701.83         12,188.41           NH <sub>5</sub> reductions         tons         4,247.48         3,110.00         2,073.24         1,948.05           Total phosphorus emissions <sup>(2)</sup> tons         63.57         50.62         54.03         /           Total phosphorus reductions         tons         514.95         406.00         232.97         /           Sludge treatment         tons         511.95         406.00         232.97         /           Hazardous waste generated         kg         1,939.68         5,316.24         2,494.09         2,435.14           Hazardous waste generated         kg         106,683.00         617,090.00         27,584.00         110,683.00           Non-hazardous waste generated         kg         106,633.00         617,090.00         27,584.00         110,683.00           Non-hazardous waste generated         kg         3,335.00.00         /         /         /           Recycling rate of non-hazardous waste         %         99         100         95         98      C	Emissions	Unit	2020	2019	2018	2017		
COD reductions         tons         36,644.23         25,888.00         14,701.83         12,188.41           NH, emissions         tons         229.93         161.00         144.14         177.48           NH, reductions         tons         64,247.48         3,110.00         2,073.24         1,948.05           Total phosphorus emissions <sup>(2)</sup> tons         63,57         50.62         54.03         /           Total phosphorus reductions         tons         111,985.80         77,358.24         34,621.25         34,926.38           Teem Group <sup>(0)</sup> 44,64.00         900.20         618.45           Recycling rate of hazardous waste generated         kg         1,656.68         3,146.00         900.20         618.45           Recycling rate of nazardous waste         %         85         59         36         25           Non-hazardous waste generated         kg         106,668.00         617,090.00         264,255.00         109,260.00           Recycling rate of non-hazardous waste         %         99         100         95         98           Construction waste generated         kg         3,333,500.00         /         /         /           Konsturction waste recycled         kg								
COD reductions         tons         36,644.23         25,888.00         14,701.83         12,188.41           NH, emissions         tons         229.93         161.00         144.14         177.48           NH, reductions         tons         63.57         50.62         54.03         /           Total phosphorus reductions         tons         63.57         50.62         54.03         /           Sludge treatment         tons         514.95         406.00         232.97         /           Sludge treatment         tons         111,985.80         77,358.24         34,621.25         34,926.38           Teem Group <sup>10</sup> 14,370.68         5,316.24         2,494.09         2,435.14           Hazardous waste generated         kg         1,656.68         3,146.00         900.20         618.45           Recycling rate of nazardous waste         %g         106,668.00         617,090.00         264,255.00         109,260.00           Recycling rate of non-hazardous waste         %g         106,330.00         617,090.00         264,255.00         109,260.00           Recycling rate of non-hazardous waste         %g         1,333,500.00         /         /         /         /           Constr	COD emissions	tons	4,270.75	2,921.00	2,150.07	2,242.47		
NH <sub>3</sub> emissions         tons         229.93         161.00         144.14         177.48           NH <sub>7</sub> eductions         tons         4.247.48         3,110.00         2,073.24         1,948.05           Total phosphorus emissions <sup>(2)</sup> tons         63.57         50.62         54.03         //           Sludge treatment         tons         514.95         406.00         232.97         /           Hazardous waste generated         kg         1,939.68         5,316.00         900.20         618.45           Recycling rate of hazardous waste generated         kg         10,656.68         3,146.00         900.20         110,683.00           Non-hazardous waste generated         kg         106,668.00         617,090.00         277,584.00         110,683.00           Non-hazardous waste generated         kg         333,500.00         /         /         /           Construction waste generated         kg         3,733,500.00         /         /         /         /           Kecycling rate of non-hazardous waste         %g         9         100         99         08         26         264.25.00         185,141.00         7         /           Construction waste generated         kg         7,333,300.00 <td< td=""><td>COD reductions</td><td>tons</td><td></td><td></td><td></td><td></td></td<>	COD reductions	tons						
NH <sub>y</sub> reductions         tons         4,247.48         3,110.00         2,073.24         1,948.05           Total phosphorus emissions <sup>(2)</sup> tons         63.57         50.62         54.03         /           Total phosphorus reductions         tons         514.95         406.00         232.97         /           Sludge treatment         tons         111,958.80         77,358.24         34,621.25         34,926.38           Teem Group <sup>(3)</sup> 1,1595.80         77,358.24         34,621.25         34,926.38           Recycling rate of hazardous waste generated         kg         1,656.68         3,146.00         900.20         618.45           Non-hazardous waste generated         kg         106,668.00         617,090.00         264,255.00         109,260.00           Recycling rate of non-hazardous waste         %         9         9         00         95         98           Construction waste generated         kg         3,333.00         /         /         /         //           Construction waste recycled         kg         3,333.90.00         /         //         //         //           Construction waste generated         kg         67,329.96         71,174.00         77.187.00	NH <sub>2</sub> emissions	tons						
Total phosphorus emissions <sup>(2)</sup> tons         63.57         50.62         54.03         /           Total phosphorus reductions         tons         514.95         406.00         232.97         /           Sludge treatment         tons         111,985.80         77,358.24         34,621.25         34,926.38           Teem Group <sup>(9)</sup> 111,985.80         77,358.24         2,494.09         2,435.14           Hazardous waste generated         kg         1,656.68         3,146.00         900.20         618.45           Non-hazardous waste generated         kg         106,668.00         617,090.00         277,584.00         110,683.00           Non-hazardous waste generated         kg         106,330.00         617,090.00         264,255.00         109,260.00           Recycling rate of non-hazardous waste         %         99         100         95         98           Construction waste generated         kg         3,333,500.00         /         /         /         /           Construction waste generated         kg         6,329.96         71,174.00         78,120.0         185,141.00           Food waste generated         kg         6,329.96         71,174.00         78,250.0         <	5	tons	4,247.48	3,110.00	2,073.24	1,948.05		
Total phosphorus reductions         tons         514.95         406.00         232.97         /           Sludge treatment         tons         111,985.80         77,358.24         34,621.25         34,926.38           Teem Group <sup>(3)</sup> 1,939.68         5,316.24         2,494.09         2,435.14           Hazardous waste generated         kg         1,656.68         3,146.00         900.20         618.45           Recycling rate of hazardous waste         %         85         59         36         255           Non-hazardous waste generated         kg         106,668.00         617,090.00         264,255.00         109,260.00           Recycling rate of non-hazardous waste         %         99         100         95         98           Construction waste generated         kg         3,33,500.00         //         ///         ///           Recycling rate of non-hazardous waste         %         99         100         95         98           Construction waste generated         kg         1,116,940.00         ////////////////////////////////////	5	tons	63.57	50.62	54.03	1		
Term Group <sup>(3)</sup> Hazardous waste generated         kg         1,939,68         5,316.24         2,494.09         2,435.14           Hazardous waste recycled         kg         1,656.68         3,146.00         900.20         618.45           Recycling rate of hazardous waste         %         85         9         36         25           Non-hazardous waste generated         kg         106,688.00         617,090.00         277,584.00         110,683.00           Non-hazardous waste generated         kg         106,683.00         617,090.00         264,255.00         109,260.00           Recycling rate of non-hazardous waste         %         99         100         95         98           Construction waste generated         kg         1,116,940.00         /         /         /           Construction waste recycled         kg         1,116,940.00         /         /         /           Construction waste recycled         kg         67,329.96         71,174.00         71,187.00         81,815.00           Food waste generated         kg         67,329.96         71,174.00         71,187.00         81,815.00           Stopher oxides (NO,) emissions         tons         168.29         129.44         148.66         136	· · · ·	tons	514.95	406.00	232.97	/		
Hazardous waste generated         kg         1,939.68         5,316.24         2,494.09         2,435.14           Hazardous waste recycled         kg         1,656.68         3,146.00         900.20         618.45           Recycling rate of hazardous waste generated         kg         106,668.00         617,090.00         277,584.00         110,683.00           Non-hazardous waste recycled         kg         106,333.00         617,090.00         277,584.00         109,260.00           Recycling rate of non-hazardous waste         %         99         100         95         98           Construction waste generated         kg         3,33,500.00         //         //         //           Recycling rate of non-hazardous waste         %         99         100         95         98           Construction waste generated         kg         1,116,940.00         //         //         //           Recycling rate of construction waste         %         67,329.96         71,174.00         77,178.700         185,141.00           Food waste generated         kg         67,329.96         71,174.00         77,187.00         81,815.00           Zhongshan Energy (*)          110,802.50         175,412.70         180,225.00         185,141.00 <td>Sludge treatment</td> <td>tons</td> <td>111,985.80</td> <td>77,358.24</td> <td>34,621.25</td> <td>34,926.38</td>	Sludge treatment	tons	111,985.80	77,358.24	34,621.25	34,926.38		
Hazardous waste recycled         kg         1,656.68         3,146.00         900.20         618.45           Recycling rate of hazardous waste         %         85         59         36         25           Non-hazardous waste generated         kg         106,668.00         617,090.00         277,584.00         110,683.00           Non-hazardous waste generated         kg         106,333.00         617,090.00         264,255.00         109,260.00           Recycling rate of non-hazardous waste         %         99         100         95         98           Construction waste generated         kg         3,333,500.00         //         //         //           Recycling rate of non-hazardous waste         %         93         10         //         //           Recycling rate of construction waste         %         3,333,500.00         //         //         //           Recycling rate of construction waste         %         9         100         //         //           Recycling rate of construction waste         kg         67,329.60         71,174.00         77,187.00         185,141.00           Food waste generated         kg         67,632.91         74.71         58.76           Suphur oxides (NO,) emissions         to	Teem Group <sup>(3)</sup>							
Recycling rate of hazardous waste         %         85         59         36         25           Non-hazardous waste generated         kg         106,668.00         617,090.00         264,255.00         109,260.00           Recycling rate of non-hazardous waste         %         99         100         95         98           Construction waste generated         kg         3,333,500.00         //         //         //           Construction waste recycled         kg         1,116,940.00         //         //         //           Construction waste recycled         kg         1,116,940.00         //         //         //           Recycling rate of construction waste         %         34         //         //         //           Total sewage discharged         tons         110,802.50         175,412.70         180,225.00         185,141.00           Food waste generated         kg         67,329.96         71,174.00         77,187.00         304.34           Sulphur oxides (NQ) emissions         tons         168.29         129.44         148.66         136.02           Smoke and dust emissions         tons         36.25         29.43         27.77         58.76           Gypsum generated         tons	Hazardous waste generated	kg	1,939.68	5,316.24	2,494.09	2,435.14		
Non-hazardous waste generated         kg         106,668.00         617,090.00         277,584.00         110,683.00           Non-hazardous waste recycled         kg         106,333.00         617,090.00         264,255.00         109,260.00           Recycling rate of non-hazardous waste         %         99         100         95         98           Construction waste generated         kg         3,333,500.00         /         //         //           Recycling rate of non-hazardous waste         %         34         //         //         //           Recycling rate of construction waste         %         34         //         //         //           Hotel Management Company (*)         //         //         //         //         //           Total sewage discharged         tons         110,802.50         175,412.70         180,225.00         185,141.00           Food waste generated         kg         67,329.96         71,174.00         77,187.00         81,815.00           Sulphur oxides (NO,) emissions         tons         168.29         129.94         148.66         136.02           Synbk and dust emissions         tons         168.247.8         67,653.97         68,808.37         62,183.03           Recycling rate	Hazardous waste recycled	kg	1,656.68	3,146.00	900.20	618.45		
Non-hazardous waste recycled         kg         106,333.00         617,090.00         264,255.00         109,260.00           Recycling rate of non-hazardous waste         %         99         100         95         98           Construction waste generated         kg         3,333,500.00         //         //         //           Construction waste recycled         kg         1,116,940.00         //         //         //           Recycling rate of construction waste         %         34         /         //         //           Hotel Management Company (*)          //         //         //         //           Total sewage discharged         tons         110,802.50         175,412.70         180,225.00         185,141.00           Food waste generated         kg         67,329.96         71,174.00         77,187.00         81,815.00           Zhongshan Energy (*)           168.29         129.94         148.66         136.02           Sinke and dust emissions         tons         168.29         129.94         148.66         136.02           Synsum generated         tons         36.25         29.43         27.77         58.76           Gypsynm generated         tons <t< td=""><td>Recycling rate of hazardous waste</td><td>%</td><td>85</td><td>59</td><td>36</td><td>25</td></t<>	Recycling rate of hazardous waste	%	85	59	36	25		
Recycling rate of non-hazardous waste         %         99         100         95         98           Construction waste generated         kg         3,333,500.00         //         //         //           Construction waste recycled         kg         1,116,940.00         //         //         //           Recycling rate of construction waste         %         34         //         //         //           Hotel Management Company (*)          //         //         //         //           Total sewage discharged         tons         110,802.50         175,412.70         180,225.00         185,141.00           Food waste generated         kg         67,329.96         71,174.00         77,187.00         81,815.00           Zhongshan Energy (*)           ////////////////////////////////////	Non-hazardous waste generated	kg	106,668.00	617,090.00	277,584.00	110,683.00		
Construction waste generated         kg         3,333,500.00         //         //         //           Construction waste recycled         kg         1,116,940.00         //         //         //           Recycling rate of construction waste         %         34         //         //         //           Hotel Management Company (*)          //         //         //         //           Total sewage discharged         tons         110,802.50         175,412.70         180,225.00         185,141.00           Food waste generated         kg         67,329.96         71,174.00         77,187.00         81,815.00           Zhongshan Energg (*)           //         ////////////////////////////////////	Non-hazardous waste recycled	kg	106,333.00	617,090.00	264,255.00	109,260.00		
Construction waste recycled         kg         1,116,940.00         /         /         /           Recycling rate of construction waste         %         34         /         /         //           Hotel Management Company <sup>(4)</sup> //         //         //           Total sewage discharged         tons         110,802.50         175,412.70         180,225.00         185,141.00           Food waste generated         kg         67,329.96         71,174.00         77,187.00         81,815.00           Zhongshan Energy <sup>(9)</sup> //         //         //         304.34           Sulphur oxides (NO,) emissions         tons         168.29         129.94         148.66         136.02           Smoke and dust emissions         tons         362.55         29.43         27.77         58.76           Gypsum generated         tons         66,524.78         67,653.97         68,380.37         62,183.03           Recycling rate of gypsum         %         100         100         100         100           Ashes generated         tons         302,148.34         305,106.84         285,208.85         256,607.26           Recycling rate of ashes         %         100         100         100 <t< td=""><td>Recycling rate of non-hazardous waste</td><td>%</td><td>99</td><td>100</td><td>95</td><td>98</td></t<>	Recycling rate of non-hazardous waste	%	99	100	95	98		
Recycling rate of construction waste         %         34         /         /         /           Hotel Management Company <sup>(4)</sup> 110,802.50         175,412.70         180,225.00         185,141.00           Food waste generated         kg         67,329.96         71,174.00         77,187.00         81,815.00           Zhongshan Energy <sup>(5)</sup> 71,174.03         449.20         304.34           Sulphur oxides (NO <sub>x</sub> ) emissions         tons         490.52         454.03         449.20         304.34           Sulphur oxides (SO <sub>x</sub> ) emissions         tons         168.29         129.94         148.66         136.02           Smoke and dust emissions         tons         166.52         29.43         27.77         58.76           Gypsum generated         tons         66,524.78         67,653.97         68,380.37         62,183.03           Recycling rate of gypsum         %         100         100         100         100           Ashes generated         tons         302,148.34         305,106.84         285,208.85         256,607.26           Recycling rate of ashes         %         100         100         100         100           Recycling rate of residues         %	Construction waste generated	kg	3,333,500.00	/	/	/		
Hotel Management Company (*)Total sewage dischargedtons110,802.50175,412.70180,225.00185,141.00Food waste generatedkg67,329.9671,174.0077,187.0081,815.00Zhongshan Energy (*)Nitrogen oxides (NO <sub>2</sub> ) emissionstons490.52454.03449.20304.34Sulphur oxides (SO <sub>2</sub> ) emissionstons168.29129.94148.66136.02Smoke and dust emissionstons36.2529.4327.7758.76Gypsum generatedtons66,524.7867,653.9768,380.3762,183.03Recycling rate of gypsum%100100100100Ashes generatedtons302,148.34305,106.84285,208.85256,607.26Recycling rate of ashes%100100100100Residues generatedtons18,805.4418,560.0019,281.9618,498.14Recycling rate of residues%100100100100DifferenceU100100100100100Bazardous waste generatedkg734.202,120.45//Hazardous waste generated%9697//Non-hazardous waste generated%9697//Non-hazardous waste generatedkg3,463,940.0097,769.00//Non-hazardous waste recycledkg3,438,000.0097,769.00//Non-haz	Construction waste recycled	kg	1,116,940.00	/	/	/		
Total sewage discharged         tons         110,802.50         175,412.70         180,225.00         185,141.00           Food waste generated         kg         67,329.96         71,174.00         77,187.00         81,815.00           Zhongshan Energy <sup>(s)</sup> 490.52         454.03         449.20         304.34           Sulphur oxides (NO <sub>2</sub> ) emissions         tons         168.29         129.94         148.66         136.02           Smoke and dust emissions         tons         362.5         29.43         27.77         58.76           Gypsum generated         tons         66,524.78         67,653.97         68,380.37         62,183.03           Recycling rate of gypsum         %         100         100         100         100           Ashes generated         tons         302,148.34         305,106.84         285,208.85         256,607.26           Recycling rate of ashes         %         100         100         100         100           Residues generated         tons         18,805.44         18,560.00         19,281.96         18,498.14           Recycling rate of residues         %         100         100         100         100           Hazardous waste generated         k	Recycling rate of construction waste	%	34	/	/	/		
Food waste generatedkg67,329.9671,174.0077,187.0081,815.00Zhongshan Energy (5)Nitrogen oxides (NO_x) emissionstons490.52454.03449.20304.34Sulphur oxides (SO_x) emissionstons168.29129.94148.66136.02Smoke and dust emissionstons362.529.4327.7758.76Gypsum generatedtons66,524.7867,653.9768,380.3762,183.03Recycling rate of gypsum%100100100100Ashes generatedtons302,148.34305,106.84285,208.85256,607.26Recycling rate of ashes%100100100100Residues generatedtons18,805.4418,56.0019,281.9618,498.14Recycling rate of residues%100100100100Bergy (6)TT111Hazardous waste generatedkg763.862,184.9511Hazardous waste generatedkg734.202,120.4511Hazardous waste generated%969711Non-hazardous waste generatedkg3,463,940.0097,769.0011Non-hazardous waste recycledkg3,438,000.0097,769.0011Non-hazardous waste recycledkg9,438,000.0097,769.0011Non-hazardous waste recycledkg9,438,000.0097,769.0011Non-	Hotel Management Company (4)							
Zhongshan Energy (9Nitrogen oxides (NO,) emissionstons490.52454.03449.20304.34Sulphur oxides (SO,) emissionstons168.29129.94148.66136.02Smoke and dust emissionstons36.2529.4327.7758.76Gypsum generatedtons66,524.7867,653.9768,380.3762,183.03Recycling rate of gypsum%100100100100Ashes generatedtons302,148.34305,106.84285,208.85256,607.26Recycling rate of ashes%100100100100Residues generatedtons18,805.4418,560.0019,281.9618,498.14Recycling rate of residues%100100100100BUH Highway (9)Hazardous waste generatedkg763.862,184.95//Hazardous waste generatedkg3,463,940.0097,769.00//Non-hazardous waste generatedkg3,438,000.0097,769.00//Non-hazardous waste recycledkg3,438,000.0097,769.00//Recycling rate of non-hazardous waste%991000/	Total sewage discharged	tons	110,802.50	175,412.70	180,225.00	185,141.00		
Nitrogen oxides (NO_x) emissionstons490.52454.03449.20304.34Sulphur oxides (SO_x) emissionstons168.29129.94148.66136.02Smoke and dust emissionstons36.2529.4327.7758.76Gypsum generatedtons66,524.7867,653.9768,380.3762,183.03Recycling rate of gypsum%100100100100Ashes generatedtons302,148.34305,106.84285,208.85256,607.26Recycling rate of ashes%100100100100Residues generatedtons18,805.4418,560.0019,281.9618,498.14Recycling rate of residues%100100100100Hazardous waste generatedkg763.862,184.95//Hazardous waste generatedkg3463,940.0097,769.00//Non-hazardous waste recycledkg3,463,940.0097,769.00//Non-hazardous waste recycledkg3,438,000.0097,769.00//Recycling rate of non-hazardous waste%99100//	Food waste generated	kg	67,329.96	71,174.00	77,187.00	81,815.00		
Sulphur oxides (SO_) emissionstons168.29129.94148.66136.02Smoke and dust emissionstons36.2529.4327.7758.76Gypsum generatedtons66,524.7867,653.9768,380.3762,183.03Recycling rate of gypsum%100100100100Ashes generatedtons302,148.34305,106.84285,208.85256,607.26Recycling rate of ashes%100100100100Residues generatedtons18,805.4418,560.0019,281.9618,498.14Recycling rate of residues%100100100100Bardous waste generatedkg763.862,184.95////Hazardous waste recycledkg374.202,120.45////Non-hazardous waste generatedkg3,463,940.0097,769.00////Non-hazardous waste recycledkg3,438,000.0097,769.00////Recycling rate of non-hazardous waste%99100////	Zhongshan Energy <sup>(5)</sup>							
Sulphur oxides (SO_) emissionstons168.29129.94148.66136.02Smoke and dust emissionstons36.2529.4327.7758.76Gypsum generatedtons66,524.7867,653.9768,380.3762,183.03Recycling rate of gypsum%100100100100Ashes generatedtons302,148.34305,106.84285,208.85256,607.26Recycling rate of ashes%100100100100Residues generatedtons18,805.4418,560.0019,281.9618,498.14Recycling rate of residues%100100100100Bardous waste generatedkg763.862,184.95////Hazardous waste recycledkg374.202,120.45////Non-hazardous waste generatedkg3,463,940.0097,769.00////Non-hazardous waste recycledkg3,438,000.0097,769.00////Recycling rate of non-hazardous waste%99100////	Nitrogen oxides (NO,) emissions	tons	490.52	454.03	449.20	304.34		
Gypsum generatedtons66,524.7867,653.9768,380.3762,183.03Recycling rate of gypsum%100100100100Ashes generatedtons302,148.34305,106.84285,208.85256,607.26Recycling rate of ashes%100100100100Residues generatedtons18,805.4418,560.0019,281.9618,498.14Recycling rate of residues%100100100100Bacardous waste generatedkg763.862,184.95//Hazardous waste generatedkg763.862,120.45//Hazardous waste generated%9697//Non-hazardous waste generatedkg3,463,940.0097,769.00//Non-hazardous waste recycledkg3,438,000.0097,769.00//Non-hazardous waste recycledkg3,438,000.0097,769.00//Recycling rate of non-hazardous waste%99100////	A	tons	168.29	129.94	148.66	136.02		
Recycling rate of gypsum         %         100         100         100         100           Ashes generated         tons         302,148.34         305,106.84         285,208.85         256,607.26           Recycling rate of ashes         %         100         100         100         100           Residues generated         tons         18,805.44         18,560.00         19,281.96         18,498.14           Recycling rate of residues         %         100         100         100         100 <b>GDH Highway (%)</b> %         100         100         100         100           Hazardous waste generated         kg         763.86         2,184.95         //         //           Hazardous waste generated         kg         763.86         2,120.45         //         //           Non-hazardous waste generated         kg         3,463,940.00         97,769.00         //         //           Non-hazardous waste generated         kg         3,438,000.00         97,769.00         //         //           Non-hazardous waste recycled         kg         3,438,000.00         97,769.00         //         //           Non-hazardous waste recycled         kg         9         90         0 <td>Smoke and dust emissions</td> <td>tons</td> <td>36.25</td> <td>29.43</td> <td>27.77</td> <td>58.76</td>	Smoke and dust emissions	tons	36.25	29.43	27.77	58.76		
Ashes generated         tons         302,148.34         305,106.84         285,208.85         256,607.26           Recycling rate of ashes         %         100         100         100         100           Residues generated         tons         18,805.44         18,560.00         19,281.96         18,498.14           Recycling rate of residues         %         100         100         100         100           GDH Highway <sup>(6)</sup> Waste generated         kg         763.86         2,184.95         //         //           Hazardous waste generated         kg         763.86         2,184.95         //         //           Hazardous waste generated         kg         763.86         2,120.45         //         //           Non-hazardous waste generated         kg         3,433,940.00         97,769.00         //         //           Non-hazardous waste recycled         kg         3,438,000.00         97,769.00         //         //           Non-hazardous waste recycled         kg         3,438,000.00         97,769.00         //         //           Non-hazardous waste recycled         kg         3,438,000.00         97,769.00         //         //	Gypsum generated	tons	66,524.78	67,653.97	68,380.37	62,183.03		
Recycling rate of ashes         %         100         100         100         100           Residues generated         tons         18,805.44         18,560.00         19,281.96         18,498.14           Recycling rate of residues         %         100         100         100         100           GDH Highway <sup>(6)</sup> ************************************	Recycling rate of gypsum	%	100	100	100	100		
Residues generated         tons         18,805.44         18,560.00         19,281.96         18,498.14           Recycling rate of residues         %         100         100         100         100           GDH Highway <sup>(6)</sup> <th< td=""><td>Ashes generated</td><td>tons</td><td>302,148.34</td><td>305,106.84</td><td>285,208.85</td><td>256,607.26</td></th<>	Ashes generated	tons	302,148.34	305,106.84	285,208.85	256,607.26		
Recycling rate of residues%100100100100GDH Highway (6)Hazardous waste generatedkg763.862,184.95//Hazardous waste recycledkg734.202,120.45//Recycling rate of hazardous waste%9697//Non-hazardous waste generatedkg3,463,940.0097,769.00//Non-hazardous waste recycledkg3,438,000.0097,769.00//Recycling rate of non-hazardous waste%99100//	Recycling rate of ashes	%	100	100	100	100		
GDH Highway <sup>(6)</sup> Hazardous waste generated         kg         763.86         2,184.95         /         /           Hazardous waste recycled         kg         734.20         2,120.45         /         /           Recycling rate of hazardous waste         %         96         97         /         /           Non-hazardous waste generated         kg         3,463,940.00         97,769.00         /         /           Non-hazardous waste recycled         kg         3,438,000.00         97,769.00         /         /           Recycling rate of non-hazardous waste         %         99         100         /         /	Residues generated	tons	18,805.44	18,560.00	19,281.96	18,498.14		
Hazardous waste generatedkg763.862,184.95//Hazardous waste recycledkg734.202,120.45//Recycling rate of hazardous waste%9697//Non-hazardous waste generatedkg3,463,940.0097,769.00//Non-hazardous waste recycledkg3,438,000.0097,769.00//Recycling rate of non-hazardous waste%99100//	Recycling rate of residues	%	100	100	100	100		
Hazardous waste recycledkg734.202,120.45//Recycling rate of hazardous waste%9697////Non-hazardous waste generatedkg3,463,940.0097,769.00////Non-hazardous waste recycledkg3,438,000.0097,769.00////Recycling rate of non-hazardous waste%99100////	GDH Highway <sup>(6)</sup>							
Recycling rate of hazardous waste%9697//Non-hazardous waste generatedkg3,463,940.0097,769.00//Non-hazardous waste recycledkg3,438,000.0097,769.00//Recycling rate of non-hazardous waste%99100//	Hazardous waste generated	kg	763.86	2,184.95	/	/		
Non-hazardous waste generated         kg         3,463,940.00         97,769.00         /         /           Non-hazardous waste recycled         kg         3,438,000.00         97,769.00         /         /           Recycling rate of non-hazardous waste         %         99         100         /         /	Hazardous waste recycled	kg	734.20	2,120.45	/	/		
Non-hazardous waste recycledkg3,438,000.0097,769.00//Recycling rate of non-hazardous waste%99100//	Recycling rate of hazardous waste	%	96	97	/	/		
Recycling rate of non-hazardous waste%99100//	Non-hazardous waste generated	kg	3,463,940.00	97,769.00	/	/		
	Non-hazardous waste recycled	kg	3,438,000.00	97,769.00	/	/		
Total sewage discharged tons 64 969 00 824 00 712 00 /	Recycling rate of non-hazardous waste	%	99	100	/	/		
	Total sewage discharged	tons	64,969.00	824.00	712.00	/		

#### Notes:

- 1. In 2020, the production capacity of the water resources segment was expanded as compared with the same period in 2019 due to the acquisition of new water resources projects such as Jiangxi Guangdong Public Utilities Holding Co., Ltd. (which holds 5 water supply companies and 5 sewage treatment plants) and Yunfu Asset Package (which comprises 6 companies engaged in water supply or sewage treatment business in Yunfu, Guangdong) and the commencement of operation of existing projects, such as the expanded water plant in Yunfu New District, the expanded Meizhou No.2 Sewage Treatment Plant and the Zhouxi River and Huangtang River water purification plants in Meizhou in 2020. As a result, the COD emissions and reductions, NH<sub>3</sub> emissions and reductions, total phosphorus emissions and reductions and sludge treatment in 2020 increased as compared with 2019;
- Restated. For better report readability and comparability, data disclosure for 2019 has been optimised and standardised data collection methods and data scope have been adopted. Therefore, the total phosphorus emissions of the water resources segment in 2019 have been updated;
- 3. In 2020, as impacted by the COVID-19 pandemic, for the commercial business of Teem Group, the number of visitors decreased and hence the hazardous and non-hazardous waste generated and recycled decreased significantly as compared with 2019. The hazardous waste disclosed above mainly includes used lamps, used toner cartridges and ink cartridges, waste batteries, while the non-hazardous waste mainly includes waste office paper, metal waste, plastic waste and glass waste, etc.
- 4. In 2020, as impacted by the COVID-19 pandemic, the number of hotel guests of the Hotel Management Company decreased significantly, resulting in a decrease in water consumption of the hotels. Meanwhile, the number of people (including employees) dining in the hotels decreased significantly as compared with 2019, resulting in a significant decrease in the food waste generated;
- 5. In 2020, Zhongshan Energy recorded increases in both power generation and steam supply as compared with the same period in 2019 and hence the sulphur oxides emissions as well as smoke and dust emissions in 2020 increased in varying degrees as compared with 2019.
- 6. In 2020, as GDH Highway did not have any waste electronic equipment, the hazardous waste generated decreased significantly as compared with 2019. In addition, as a number of road renovation projects were carried out during the year and all old protective plates were demolished and replaced, the sewage discharged and non-hazardous waste generated in 2020 increased significantly as compared with 2019.

### SUSTAINABLE CONSUMPTION OF RESOURCES

GDI proactively promotes paperless management and office, and strictly implement "eight offs" principle, requiring employees to turn off the idle electronic equipment before leaving offices and adopting centralised management of company vehicles so as to achieve energy conservation and environmental protection continuously.

In accordance with the Management Measures for the Deployment and Use of Vehicles, the Rules for Reception Standards and other regulations, we clearly set out the appropriate occasions for vehicle usage and the standards for reception activities to encourage green commuting and standardised reception so as to avoid wastage of resources. We also require all business segments to carry out reasonable procurement of office supplies and all subsidiaries shall purchase supplies when necessary in accordance with their respective regulations such as the Management Measures for Office Supplies of Zhongshan Energy and business needs in order to avoid excessive warehousing of supplies and encourage employees to conserve resources.
71

Use of Resources	Unit	2020	2019	2018	2017
Hong Kong headquarters		,			
Total electricity consumption	10 MWh	10.19	9.64	10.66	9.19
Water resources <sup>(1)</sup>					
Electricity consumption in business operations	10 MWh	72,671.07	63,465.71	57,804.17	53,122.00
Total gasoline consumption	litres	521,449.49	155,893.33	/	/
Total diesel consumption	litres	153,323.38	16,853.66	/	/
Renewable energy consumption	10 MWh	359.22	155.01	/	/
Teem Group <sup>(2)</sup>					
Total electricity consumption	MWh	65,504.01	61,189.01	70,880.82	68,638.31
Total gasoline consumption	litres	25,022.98	33,031.04	30,274.49	21,679.52
Total diesel consumption	litres	1,855.87	950.00	972.00	/
Total natural gas consumption	m <sup>3</sup>	971,570.00	905,741.00	1,197,511.00	/
Total water consumption	tons	779,292.68	928,822.00	903,731.04	632,464.03
Hotel Management Company <sup>(3)</sup>					
Total electricity consumption	10 MWh	1,256.79	1,233.15	1,228.32	1,251.73
Total gasoline consumption	litres	34,569.39	51,045.00	55,393.00	51,918.00
Total diesel consumption	litres	53,092.13	129,706.00	119,863.00	101,240.00
Total natural gas consumption	m <sup>3</sup>	47,465.00	69,744.00	71,960.00	/
Total water consumption	tons	118,551.00	194,903.00	200,250.00	194,885.00
Zhongshan Energy <sup>(4)</sup>					
Total coal consumption	tons of standard coal	1,109,379.86	1,011,361.16	1,045,805.43	902,624.00
Total gasoline consumption	litres	16,647.76	17,701.84	19,212.09	16,266.02
Total diesel consumption	litres	79,862.72	40,862.50	186,453.00	52,430.00
Total water consumption	tons	7,701,220.00	6,869,629.00	8,405,747.00	6,579,327.00
Water consumption in production	tons	7,572,910.00	6,735,484.00	8,248,500.00	6,498,400.00
Industrial water recycling rate	%	98	97	/	/
Domestic water consumption in	tons	128,310.00	134,145.00	157,247.00	80,927.00
office					
GDH Highway <sup>(5)</sup>		4 4 7 9 7	124.65	100.01	100.15
Total electricity consumption	10 MWh	147.27	121.65	108.34	108.15
Total diesel consumption	litres	10,684.13	12,615.72	8,179.86	9,381.31
Total gasoline consumption	litres	48,051.94	50,896.62	52,455.47	62,623.42
Total water consumption	tons	64,969.00	23,650.00	24,850.00	/
Group Total		4 242 225 22	, ,	,	
Comprehensive energy consumption	tons of standard coal	1,210,835.22	/	/	/
Comprehensive energy consumption intensity	tons of standard coal/ HK\$10,000 of revenue	0.52	/	/	/

#### Notes:

- In 2020, the production capacity of the water resources segment was expanded as compared with the same period in 2019 due to the acquisition of new water resources projects such as Jiangxi Guangdong Public Utilities Holding Co., Ltd. (which holds 5 water supply companies and 5 sewage treatment plants) and Yunfu Asset Package (which comprises 6 companies engaged in water supply or sewage treatment business in Yunfu, Guangdong) and commencement of operation of existing projects, such as the expanded water plant in Yunfu New District, the expanded Meizhou No.2 Sewage Treatment Plant and the Zhouxi River and Huangtang River water purification plants in Meizhou in 2020. As a result, the consumption of gasoline, diesel and electricity in 2020 increased as compared with 2019;
- 2. As impacted by the COVID-19 pandemic, the use of commercial vehicles of Teem Group decreased in 2020, and the gasoline consumption decreased accordingly. Meanwhile, the number of visitors to our commercial operations decreased during the pandemic, resulting in a decrease in total water consumption as compared with 2019. In addition, due to the closure of the Dongguan Store, the frequency of goods delivery by diesel trucks between Guangzhou and Dongguan increased. Moreover, the diesel generator as emergency backup power source was put into trial operation once a month, which increased the consumption of diesel and resulted in a significant increase in total diesel consumption in 2020 as compared with 2019.
- 3. As impacted by the COVID-19 pandemic, the number of hotel guests of the Hotel Management Company decreased significantly in 2020 and the demand for energy and resource consumption decreased accordingly. Therefore, the total consumption of gasoline, diesel and natural gas as well as the total water consumption in 2020 decreased in varying degrees respectively as compared with 2019.
- 4. In 2020, as Zhongshan Energy purchased two new diesel engineering vehicles and increased the frequency of operating equipment such as start-up boilers and diesel generators, the diesel consumption in 2020 increased significantly as compared with the same period of 2019.
- 5. In 2020, GDH Highway cancelled the toll stations at provincial borders and added new energy-intensive equipment, resulting in an increase in total power consumption as compared with 2019. At the same time, the frequency of power generation by diesel engines decreased due to the more stable supply of electricity in the management areas in 2020, which, together with the reduced use of diesel vehicles, resulted in a decrease in total diesel consumption in 2020. In addition, there were more road renovation projects in 2020 that required the use of water during the process. As a result, the total water consumption in 2020 increased as compared with 2019.





#### **PRIORITISING HEALTH AND SAFETY**

GDI always adheres to the safety management concept of "life and safety first" and is committed to ensuring the safety and health of employees and visitors. Through constantly enforcing and enhancing the safety management system in different business segments, further amplifying the execution of safety supervision and improving the safety awareness of employees and relevant parties, we endeavour to prevent major safety incidents in our business operations.

The Group strictly complies with national and regional laws and regulations, including the Labour Law of the People's Republic of China, the Production Safety Law of the People's Republic of China, the Fire Prevention Law of the People's Republic of China, the Law of the People's Republic of China on the Prevention and Treatment of Occupational Diseases and the Occupational Safety and Health Ordinance of the Hong Kong Special Administrative Region and purchased social insurance and employer liability insurance for all employees to guarantee their safety, in an effort to provide a healthy, reassuring and safe working environment.

The Group also formulated rules and regulations including the Regulations on Production Safety Management of Guangdong Investment Limited, the Provisional Measures for Screening, Identification and Control of Production Safety Hazards of Guangdong Investment Limited, the Provisional Management Measures for Hazard Management of Guangdong Investment Limited, the Measures for Appraisal of Production Safety Management of Guangdong Investment Limited and the Provisional Regulations on Production Safety Responsibility System of Guangdong Investment Limited to specify the responsibilities of departments and employees in safety management.

To enhance production safety management of the Group and its business segments, the Group set up respective production safety committees for various business segments. The Managing Director is responsible for leading, supervising and managing the production safety issues within the management scope of the Group. The Production Safety Committee of each business segment is chaired by their respective chairmen who is responsible for supervising and managing the production safety work within their respective business scope.

#### Main Responsibilities of the Production Safety Committee

- Consistently implement the production safety laws and regulations, policies, procedures and industry standards and the decisions and deployments in relation to production safety;
- Organise and formulate the targets for production safety and supervise their implementation;
- Conduct debrief on production safety, analyse the situation of production safety and establish appropriate counter measures;
- Supervise the formulation and improvement of production safety management system by subsidiaries; and
- Ensure the effective implementation of production safety work.

In the past three years, we did not have any work-related fatalities or serious injuries. In 2020, we recorded a total of 15 work-related injuries and a loss of 106 working days in total, representing a decrease of 51.8% as compared to 2019.

#### SAFETY MANAGEMENT SYSTEM

#### Water Resources Segment:

We adopted a vertical management system for personnel specialised in safety management for subsidiaries reaching certain business scale (having two or more sewage treatment plants, excluding village-and-town level sewage treatment plants) in the water resources segment, in a bid to enhance the monitoring of safety network development of each water company and promote safety management efficiency. Each water company appointed safety directors to provide guidance on production safety. Meanwhile, they also formed production safety (emergency) management departments to exert dedicated management and control and take corresponding responsibilities for the development of production safety system as well as the daily management and operation concerning production safety.

During the year, we revised and improved the safety management system and carried out safety management of subsidiaries. We strictly supervised the implementation of various safety management regulations of our subsidiaries, requiring subsidiaries to strengthen the training and publicity of the safety management system and attached more importance to the safety management system so as to enhance employees' understanding of the safety management system and arouse their attention. The subsidiaries were required to revise and update the safety management system in a timely manner according to the system requirements from the higher level and the actual situation. We also required the senior management of each company to earnestly implement safety management system and serve as a role model to the employees in this regard.

In addition, for the new subsidiaries, we have also formulated the Guidelines for the Takeover of New Projects of Guangdong Water Holdings Limited to guide the subsidiaries or the newly established project companies to achieve the three-level production safety standardisation in a progressive manner, and obtain relevant certifications within three years. The newly established project companies are required to operate in accordance with the PDCA model of the safety management system of Water Holdings.

We also formulated the management measures relating to occupational hazards and risks, including the Manual on Quality, Environment, Occupational Health and Safety Management Systems, the Control Procedures for Hazard Identification and Risk Appraisal, the Control Procedures for Occupational Health and Safety Operation, the Emergency Response and Accident Handling Procedures and other documents to provide operational guidance for safety management. We have formulated the Provisional Operational Risk Classification and Grading Control Plan to identify the corresponding key risks and risk levels in production, hazardous chemical management, vehicle usage, engineering, fire safety, etc. and to clearly state the risk management measures and the requirements for operators, thereby reducing the exposure of employees to occupational health and safety risks and preventing work-related injuries comprehensively.

In addition to our own business operations, we included safety management requirements in our tender documents and contracts with suppliers, contractors and service contractors to clarify the safety responsibilities of the relevant parties and signed safety management agreement simultaneously when signing the contract, requiring them to undertake safety management throughout the entire process in terms of safety responsibilities, target management, supervision and assessment.

We also incorporate the business risks of the relevant parties into our risk management boundary, implement risk management and control, conduct regular inspection and appraisal, consider rewards and punishment seriously and conduct appraisal of relevant management department of the relevant parties so as to achieve safety management throughout the whole process.

75

#### Production safety performance

During the year, a total of 30 subordinate water companies of Water Holdings have obtained ISO 45001 Occupational Health and Safety Management System certification. In addition, in accordance with the requirements of the Ministry of Water Resources, we have integrated the standardisation of production safety into the daily production safety management and a total of 1, 14 and 7 subsidiaries have obtained Grade 1, Grade 2 and Grade 3 Qualifications for production safety standardisation respectively. Moreover, a subsidiary was awarded "National Safety Culture Construction Model Enterprise" and 2 subsidiaries were awarded "Provincial Safety Culture Construction Model Enterprise", respectively, which helped the water resources segment to promote the construction of production safety standardisation as a whole.

Furthermore, we have established the safety performance appraisal system and corresponding annual KPIs for the water resources segment in accordance with the safety management systems. With the efforts and rigorous supervision by each company, the water resources segment has achieved all safety targets for the year.

Production Safety Target of the Water Resources Segment in 2020	Target Value
Occupational disease	0
Fire liability accident	0
Major equipment liability accident involving loss of RMB100,000 or above	0

Production Safety Target of Yue Gang Water Supply in 2020	Target Value
Loss of working hours per one million working hours	≤50
Major events in relation to social responsibility	0
Liability accident involving one death or three or more serious injuries of directly	
related parties with management liability or severe negative impacts	0

Production Safety Target of Water Holdings in 2020	Target Value
Liability accident with serious injury or above	0
Violations by employees at serious level or above	0
Major water quality liability accident	0
Liability accident involving one or more serious injuries of directly related parties	0

#### Property Investment and Development and Department Store Operation:

Teem Group strictly implements the "Five Measures in Place" regarding safety responsibility, management, implementation, training and emergency rescue to strengthen its capability in production safety management. We organise all employees to sign production safety responsibility statements based on their levels and positions every year, so that employees at all levels and positions can clearly define their own safety responsibilities and fully implement the production safety responsibility system for all employees. Teem Group conducts a comprehensive inspection and review on production safety management and compliance on a regular basis, and implement corresponding risk prevention measures to minimise safety responsibility risks.

#### **Production** safety performance

Teem Group established a safety performance appraisal system in accordance with the safety management system, and sets appropriate annual KPIs every year. During the reporting period, Teem Group had no accidents in relation to production safety liability, occupational disease hazards and environmental pollution with no injuries of employees.

Production Safety Target of Teem Group in 2020	Target value
Liability accident with serious injury or above	0
Minor injury rate of employees	Not more than 0.001
Non-personnel injury and production safety liability accident with direct economic loss of more than RMB100,000	0
Occupational disease of employees	0
Liability accident in relation to environmental pollution	0
Semi-annual and annual production safety management appraisal	Not less than score of 80

Teem Group also actively commenced production safety standardisation, organised professional technical personnel to conduct self-appraisal work and engaged third-party professional safety institutions to carry out external reviews. Currently, a total of three companies or branches have obtained the Grade 2 qualification for national production safety standardisation.

#### Hotel Ownership, Operation and Management:

The Hotel Management Company is committed to improving various production safety management systems. During the Year, the Hotel Management Company further improved the safety hazards screening and safety prevention and control system, formulated and optimised the Appraisal Measures for Production Safety Management of Guangdong (International) Hotel Management Holdings Limited, the Management Regulations on Production Safety of Guangdong (International) Hotel Management Holdings Limited, the Regulations on Production Safety Responsibility System of Guangdong (International) Hotel Management Holdings Limited, the Work Guidelines for the Persons in Charge of Hotel Production Safety of Guangdong (International) Hotel Management Holdings Limited, the Management Holdings Limited, the Regulations on Management and Control of Production Safety Risks as well as Screening and Management of Safety Hazards of Guangdong (International) Hotel Management Holdings Limited and other internal policy documents, which provide guidance for the production safety of the Hotel Management Company. Through such measures, it strengthened the production safety responsibilities of all entities, timely eliminated risks and hazards and ensured production safety.

In addition, we formulated the Regulations on Work Management of Relevant Parties in the Construction Projects of Guangdong (International) Hotel Management Holdings Limited to supervise the safety management of employees of relevant parties in construction projects. We require the construction entities or general contractors cooperating with the Hotel Management Company to conduct a comprehensive review of its suppliers or contractors on the qualification certificates, production safety licenses, construction performance and construction safety records for the latest three years, provide pre-construction training on safety, carry out regular safety examination, sign the Safety Management Agreement and, pursuant to which, implement the production safety bond system and safety credit management, etc. so as to supervise the performance of relevant parties in construction safety, reduce safety risks and prevent accidents from happening.

#### **Production safety performance**

As required by its Assessment and Scoring Standard for Production Safety, the Hotel Management Company conducted self-review on production safety and achieved an average score of 92 for the year. During the reporting period, the Hotel Management Company had no safety liability accidents and accomplished the following production safety targets:

Production Safety Target of Hotel Management Company in 2020	Target Value
Production safety liability accident with minor injury or above	0
Occupational disease of employees	0
Liability accident for property loss with direct economic loss of more than RMB100,000	0

The Hotel Management Company continued to encourage all hotels to obtain the production safety standardisation certification and a total of three hotels have been awarded the Grade 3 enterprise of production safety standardisation and one hotel has been awarded the Grade 2 enterprise of production safety standardisation.

#### Energy Projects:

During the year, the energy projects segment formulated the Management Standards for Production Safety Technology and Labour Protection and Anti-accident Technical Measures of Zhongshan GDH Energy Co., Ltd. and the On-site Handling Plan of Zhongshan GDH Energy Co., Ltd., and revised 8 safety management standards, including the Management Standards for Production Safety Rewards and Punishments of Zhongshan GDH Energy Co., Ltd., the Fire Safety Management Standards of Zhongshan GDH Energy Co., Ltd., the Management Standards for Occupational Health Supervision and Labor Protection Products of Zhongshan GDH Energy Co., Ltd., the Safety Management Standards for Relevant Standards for Special Equipment of Zhongshan GDH Energy Co., Ltd., the Safety Management Standards for Relevant Parties (External Parties Involved) of Zhongshan GDH Energy Co., Ltd. and the Safety Management Standards for Special Operation of Zhongshan GDH Energy Co., Ltd.. We formulated and implemented a total of 34 special production safety management standards, thereby further improving the company's production safety management system and comprehensively implemented safety governance.

In the revised Safety Management Standards for Relevant Parties (External Parties Involved) of Zhongshan GDH Energy Co., Ltd., we clearly set out the responsibilities of the project management department in safety management, covering the whole process of safety, security management, construction process control, safety supervision and management, acceptance and evaluation and strengthening the production safety management of third parties, suppliers, contractors and other relevant parties comprehensively.

Meanwhile, we strictly review the safety qualification of relevant parties and require the relevant parties to sign the production safety agreement to specify the safety management responsibilities of both parties. Besides, we include the personnel of relevant parties into the Company's safety training system, providing basic safety and technology training for the employees of relevant parties. We also formulate and review the proposal for operation with high safety risk and strengthen the safety control of on-site operation process so as to ensure the safety performance of the relevant parties are in line with expectation.

#### Production safety performance

Zhongshan Energy implements production safety target management and sets targets on production safety every year, covering various safety indicators in personnel, equipment, environment and management perspectives, and allocates the safety tasks to respective departments, teams and individuals. Assessment and appraisal for departments are carried out on the progress of targets achievement to make continuous improvements. To implement the production safety responsibility system, signing of the production safety responsibility statements is required level by level and a comprehensive three-level safety system has been established. During the year, we continued to conduct special examinations on the annual production safety targets of various departments, with all annual production safety targets achieved. We achieved the annual production safety targets of "six zeros", i.e. "no personnel injury accident, no equipment accident at the lowest level or above, no fire accident at the lowest level or above, no environmental incident at the lowest level or above, no traffic accident which incurs liabilities at serious level or above and no occupational disease cases".

During the year, Zhongshan Energy engaged a thirdparty company to conduct an evaluation on the current status of occupational disease and obtained an evaluation report. In accordance with applicable national laws, regulations, rules and relevant standards, the evaluator carried out inspection, testing and evaluation on the three major areas of the company, namely production area, auxiliary production area and non-production area. The evaluation result shows that the company's occupational health management is in compliance with the national requirements.



79

#### Roads and Bridges:

GDH Highway continued to carry out a comprehensive review of the safety management system and constantly improved our production safety system. During the year, a total of 33 production safety system, operating procedures and emergency plans were formulated or revised to guide and regulate various work. In addition, we have obtained the Grade 2 certification of production safety standardisation and are amongst those peer group highway operators which has first passed the Grade 2 certifications of production safety standardisation in Guangxi.

We continuously strengthen the management and control of production safety risks, regularly carry out the identification and assessment of production safety risks and provide the Register for Production Safety Risks to governing authorities of the industry on a quarterly basis so as to dynamically monitor those areas with safety risks. During the year, we conducted 2 production safety risk identifications to assess risks and identified a total of 261 safety risks, of which no significant risks were identified. We will continue to implement safety risk control measures to ensure that those areas with safety risks are safe and managed.

During the year, we also consulted third-party safety technology service provider and organised comprehensive production safety inspections and implemented production safety management for all contractors of the road renovation project, thereby greatly improving the construction safety factors and eliminated the safety hazards. During the year, we also conducted research on road renovation project, impose requirements on safety facilities distribution in different operating areas and the construction safety in the closed areas so as to ensure the safety of construction personnel, vehicles as well as machinery and equipment in the closed areas.



GDH Highway formulated the Safety Management Requirement for Relevant Parties, which provides guidance for safety management works of suppliers, contractors and service contractors. Meanwhile, we carry out safety qualification audit for outsourced projects, conduct safety training for outsourcing unit from time to time. During the year, we conducted 74 safety audits on relevant parties targeting areas for improvement in safety management and potential safety hazards on construction.

#### Production safety performance

In 2020, GDH Highway continued to consider and organise production safety work and emergency response in a serious manner. GDH Highway formulated the 2020 Work Plan for Production Safety and Emergency Response Management, which specifies the safety management targets, assigns them to each staff and requires the staff to sign the production safety responsibility statements. No production safety liability accident occurred during the year and the 2020 safety targets were achieved.

Production Safety Target of GDH Highway in 2020	Target Value
1. Liability accident with degree of injury above minor injury	0
2. Fire liability accident	0
3. Occupational disease rate of employees	0
4. Traffic accident with major liability	0
5. Incident of stability maintenance via petition letters and visits	0
6. Liability accident with direct economic loss of more than RMB100,000	0
7. Three-level safety education and training rate of employees	100%
8. Rectification rate of safety hazards	100%
9. Annual inspection rate of vehicles and whole-vehicle weighbridges	100%
10. Daily inspection and maintenance rate of toll collection systems and generator units	100%
11. Rate of prompt hindrance clearance and rescue	100%

#### **PRODUCTION SAFETY ENHANCEMENT**

#### Water Resources Segment:

We formulated the Appraisal Measures for Production Safety Management to strengthen production safety management, strictly implement responsibilities on production safety and regulate the appraisal and incentive mechanisms for production safety management. The management measures require us to conduct annual appraisal on the safety responsibility statements and review the performance of all entities on achievement of production safety targets based on the appraisal requirements of the Group and the actual situation of all entities on production safety.

Meanwhile, we carry out routine inspection and appraisal, including comprehensive inspections by the headquarters and all departments, regional cross-checks appraisal, inspections, appraisal by third parties, remote video surveillance inspection and appraisal as well as various special safety inspections and appraisals. We monitor performance on production safety in all dimensions and require timely rectification when potential danger is discovered. The finalised appraisal results on production safety are released on the intranet and included in annual performance appraisal of all regions and subsidiaries. Those failing to meet the standards will be punished.

We adopt modern and digitalised means to monitor production and office areas and require new construction projects under the water resources segment to install video surveillance systems. Companies with video surveillance systems and projects under the existing renovation programmes are required to connect their current video surveillance systems to those at the headquarters to enhance safety monitoring and management on the water resources segment.

During the year, we continued to reinforce trainings on safety education and carry out special trainings for construction project managers to improve their management skills on project safety. We also conducted video trainings on safety alert, purchased safety alert promotional videos and produce education and training videos on operation in restricted space by using typical cases in the water industry so as to enhance the employees' awareness on production safety.

To improve safety management, we actively explore advanced safety management methods and enhance cooperation and communications with professional safety companies with reference to the safety management experience of local power supply bureaus, in order to improve the understanding and management of digitalised and intelligent safety applications, the establishment of safety culture and safety innovation. Meanwhile, we consistently boost the construction of digitalised safety management system and build a data- and information-based integrated safety management system to improve safety management and efficiency.

#### Property Investment and Development and Department Store Operation:

Teem Group adopts Job Risk Analysis (LEC) method to quantitatively analyse each business premise to identify high, medium and low risk sources, creates a register for production safety risk control at different levels and formulated preventive measures based on the levels of risks. Meanwhile, we have safety hazards screening and management system in place for safety hazards screening and management and have developed a register to ensure prompt elimination of sources of danger. In 2020, a team led by senior management conducted 574 inspections for production safety compliance. Each quarter, the person in charge of production safety conducted production safety of each department conducted inspections on at least three occasion; the person in charge of production safety of each appropriate together with heads from respective businesses and the senior management from each subordinate company organised production safety inspections at least once a month.

#### Hotel Ownership, Operation and Management:

The Hotel Management Company continued to improve production safety management during the year. Based on the requirements of the Group and the actual situation of the Hotel Management Company, we conduct fire safety management, leased property management and project construction management on each entity on a monthly basis, carry out comprehensive inspection and scientific ranking and establish potential hazards investigation and remediation. We arrange designated employees to follow up the progress and to complete the remediation within the prescribed time limit, thereby effectively eliminating potential risks and hazards and ensuring safety in production and operation. In addition, we regularly and also randomly inspect documents about production safety systems, construction design and special plans, records of safety education and trainings as well as registers for inspection and rectification of potential hazards from participating units. We conduct spot checks on the work permits of special operators on construction sites, carry out procedures for the prevention and control of significant risks on construction sites, prepare drawings on the distribution of dangerous areas and inspect potential safety hazards.

Meanwhile, we set indicators and conduct appraisal on responsibility and specify responsibilities and work targets on work safety based on the indicators set out in the safety responsibility statements of the Group. We organise cross-checks by all entities. The management members and all departments of the Hotel Management Company, as well as responsible persons of all hotels are required to sign the product safety responsibility statements to facilitate the improvement of their production safety management functions and enhance the management of vocational qualifications for the responsible persons and management personnel on production safety. Besides, we strengthened production safety management of relevant parties and arranged designated staff to sign the safety responsibility statements with tenants and included the fire safety management of tenants into routine safety management by specifying responsible persons in charge. We intensified patrol inspections and management on fire safety targeting tenants to rectify the violation behaviors of tenants in a timely manner.

#### Energy Projects:

Zhongshan Energy established a special production safety management office under the production and technology department, comprising 3 production safety management staff, which improved the production safety responsibility system on all employees at all levels. Meanwhile, we intensified trainings and education on production safety to enhance employee's self-awareness. We provided three-level of safety training and education on each batch of new employees and staff with job changes. We established archives on three-level safety training and education to fully boost safety education on employees. We also conducted special re-trainings and education for current employees on special areas, including equipment operation and repairing, safety of dangerous chemicals, operation of special equipment, fire safety and traffic safety, enabling employees to understand and master professional knowledge and operational skills on production safety required for the positions. We provided safety trainings for over 1,000 participants during the year to further improve the safety and operation skills of employees and enhance their awareness on production safety.

0 0

In addition, we consistently enhanced special rectification to ensure safety risks are under effective control. Meanwhile, we strengthened the safety management of dangerous chemicals and the management of hazardous waste. We strictly regulated the safety management of dangerous chemicals in the process of purchase, storage, usage, disposal and others. We strengthened the management measures on the qualification and licenses of dangerous chemicals suppliers, safety labeling, storage containers, management of special warehouses, records on storage management, site for use, waste disposal procedures and emergency handling methods to reinforce risk control in all processes.

We established special warehouses for dangerous waste in strict compliance with standards on the management of dangerous waste, implemented the registration system on dangerous waste in accordance with laws and regulations and appointed service providers with corresponding qualifications for transfer and disposal according to laws. During the year, we strengthened the management of fire safety and enhanced the inspections and rectifications of fire sprinkler facilities, water mist sprinkler facilities and fire pump facilities in key areas for fire prevention. We organised and carried out 4 special inspections on fire and electricity safety and eliminated 23 fire hazard spots.

#### **Roads and Bridges:**

GDH Highway carried out a comprehensive review on safety management systems and continuously improved and revised the production safety systems of the Group during the year. We formulated the production safety education and training plans for 2020 and provided three-level safety education on new employees and staff with job changes (adjustments) A total of 34 participants received training. We arranged 7 external learning and communication activities, organised 10 video education activities on accident alert and conducted 4 examinations on safety knowledge for all employees. All employees attended the three-level safety education and passed the examination on safety with full marks. All operators for special operation held the corresponding work permits.



Lecture on fire safety knowledge by professional training agencies



Production safety management training provided by construction safety and technology advisory service providers

We continuously invested resources to reinforce the safety of GDH Highway. We invested approximately RMB1,416,800 on safety management during the year and improved the road safety protection level through road renovation. During the year, we convened the production safety work meeting as scheduled, studied and deployed various work on production safety. We also held "Traffic Police, Highway and Corporate" joint meetings on ensuring safety before important holidays, studied and deployed work on smoothing traffic to safeguard the safety and smooth operation of highways. We also conducted inspections and management of safety hazards, formulated plans on supervision and inspection on production safety in 2020 and organised inspections on production safety according to the requirements. We also followed up, rectified and provided feedbacks to issues identified and strictly implemented "Five Measures in Place" on safety hazards.

We also established the "Traffic Police, Highway and Corporate" Joint Coordination and Command Centre on Road Renovation Project and deployed traffic wardens, co-channel interphones, traffic dispersion equipment and patrol vehicles. It improved the efficient and rapid working mechanism with multi-party coordination, so as to achieve the work targets of resources sharing, information exchange, unified coordination and high efficiency and quality and jointly safeguard traffic safety and order. We established 7 "GDH stations" in our areas and deployed emergency rescue facilities and equipment based on actual demand. They played an active role in handling traffic accidents and traffic dispersion and ensured safe and smooth highways during the construction period.

#### **EMERGENCY RESPONSE MECHANISMS**

#### Water Resources Segment:

The Consolidated Contingency Plans for Emergencies of Guangdong Water Holdings Limited provided subsidiaries with guidance on emergencies and responses. It classified different emergencies into four categories and sort emergencies into four levels of risks according to their severity, controllability, scale of influence and other factors. The emergency leading teams, emergency response office and five working groups for emergencies were set up to carry out the comprehensive emergency response. The water resources segment has formulated the Emergency Preparedness and Response Procedures to identify potential safety risk or emergencies so as to prevent and reduce the diseases and injuries.



**Emergency Response System of Water Resources Segment** 

All entities of the water resources segment study and analyse possible emergencies with severe consequence in the production process in an in-depth manner, such as meteorological disasters, outbreak of epidemics, personal injuries, terrorist attack, leakage of hazardous chemicals and fire disasters and have formulated careful and meticulous drill plans for such emergencies. During the year, we carried out emergency drills including the prevention and control of the COVID-19 pandemic under the situation of work and production resumption, emergency rescue drills in limited space and joint drill for emergency flood control. Meanwhile, all entities actively cooperated with external emergency rescue teams and local emergency handling departments, such as the liquid chlorine leakage emergency drill and water emergency rescue comprehensive drill with fire brigade and provincial emergency centres, enhancing the professionalism and reasonableness of emergency exercises. The emergency management personnel of different entities of the Group reviews the whole process of drills, summarises and evaluates emergency drills repeatedly, consolidate the results of drills, formulates corresponding rectification measures and improves relevant emergency proposals so as to strengthen all emergency plans and enhance overall emergency response capabilities.

During the year, we carried out a series of targeted emergency drills and enhanced the capabilities of employees to handle emergency accidents. The results are as follows:

	Emergency proposals formulated and revised	Emergency drills	Participants in drills (number of participants)	Agreements entered into with professional emergency rescue teams	Emergencies
Water Holdings	331	380	8,777	2	4
Yue Gang Water Supply	101	69	1,536	3	4

We recorded no accidents with injuries or property losses as a result of human errors, improper organisation, poor coordination or mismatch in coordination in emergency drills during the year.



Suixi Guangdong Water Co., Ltd. carries out emergency rescue drills within limited space



Suixi Guangdong Water Co., Ltd. carries out emergency rescue drills on drowning accidents



Emergency drills on preventing floods and typhoons with Dongshen Police Station



Wuhua Guangdong Huanbao Co., Ltd. carries out emergency exercises on firefighting and contingency evacuation



Nanchang Water Supply Company Limited joins fire brigades and the county level emergency centre in conducting emergency drills on liquid chlorine leakage



## Case Study: Yue Gang Water Supply Conducted Integrated Emergency Drills on Prevention of Floods, Typhoons and Droughts with Luohu District Governmental Authorities

On 13 August 2020, Yue Gang Water Supply and the Command Office on Prevention of Floods, Typhoons and Droughts of Luohu District carried out the annual integrated emergency drills on the prevention of floods, typhoons and droughts at the reservoir in Shenzhen with approximately 200 participants. It simulated piping, landslides, water rescue and other emergency scenarios on the dam of the reservoir and carried out series of emergency rescue to test our practical skills and emergency handling capabilities on flood prevention and rescue.

The drills introduced "Shenzhen emergency onetouch access" information transmission, water rescue by using unmanned aerial vehicles and other high-tech application on emergency and fully enhanced the capabilities on floods prevention and disaster rescue with multi-functional floating rescue stretchers, floating lights and other advanced rescue equipment.



#### Property Investment and Development and Department Store Operation:

To ascertain and improve the emergency handling and response capabilities, Teem Group organised a total of 75 alarmed emergency exercises and 112 un-alarmed emergency exercises of various types, with total number of approximately 9,495 participants involved in 2020, effectively enhancing the emergency response and rescue capabilities to safety accidents. Teem Group carried out fire drills that simulated tenants on fire to educate fire emergency handling procedures and response for employees of all units.

#### **Case Study: Fire Safety Training of Teem Group**

Teem Group organised various trainings on fire safety for tenants and employees, including practical trainings on fire prevention devices and fire safety practice training. It provided tenants and employees with knowledge on fire escape and the usage of gas masks and fire extinguishers as well as practical training on using fire extinguisher to ensure that relevant parties understand emergency handling procedures and the standard operation on fire prevention.



We carried out special inspections on gas appliances of catering tenants at shopping centres and on safety on power usage of high-low pressure power distribution rooms and equipment rooms to ensure their compliance with safety regulations. We conducted intensive inspections on production safety before important holidays to maintain stable production safety.



Inspection on gas appliance of tenants



Inspection on gas appliance of tenants

#### Hotel Ownership, Operation and Management:

The Hotel Management Company has formulated internal policy documents to provide guidance for handling various types of emergencies. During the outbreak of the pandemic, we formulated and released the Emergency Handling Plan on Suspected COVID-19 Cases to guide all entities in preventing and controlling the pandemic. It coordinated the capabilities of all entities to respond to emergencies and effectively prevented the spreading of the pandemic.

In addition, we have conducted drills under emergency plans. For example, during the 'Month of Production Safety" and the "Month of 119 Fire Safety Publicity", we organised drills under the safety plan on preventing floods and typhoons, the plan on people trapped in an elevator, the plan on stove fire in kitchen and other emergency plans. Certain hotels even invited or joined local fire brigades and conducted emergency exercises such as firefighting and evacuation drills, enhancing the emergency response capabilities of all employees on firefighting. We also supplemented relevant emergency devices and equipment for fire prevention. In 2020, our various entities organised a total of over 40 trainings with over 1,080 participants and carried out a total of over 30 emergency drills with a total of over 2,040 participants, which effectively improved the capabilities of employees to respond to and deal with various emergencies.

Besides, we intensified emergency management on holidays. We strictly implemented the three-level stand-by system and urged the Hotel Management Company and units under its supervision to strictly implement the stand-by system of the Group. Major leaders and department heads shall stand by 8 hours a day while stand-by personnel shall stand by 24 hours a day to ensure production safety and emergency response to contingencies.

#### Energy Projects:

Zhongshan Energy continuously enhanced emergency drills and improved the production safety and integrated emergency plans on production, special emergency plans and on-site handling plans during the year. Based on the three-year plan on emergency drills of the company, we regularly organises trainings and drills on emergency plans. During the year, we organised drills on liquid ammonia leakage, prevention of typhoons and floods, hydrochloric acid leakage, power failure in all plants, fire on coal belts, fire evacuation and emergency rescue, etc. In 2020, the company and all departments carried out over 200 drills under various plans, including 10 practical drills.

#### **Roads and Bridges:**

GDH Highway has implemented the emergency duty system with major leaders of the company leading the shift by rotation and employees sticking to their positions. The "Traffic Police, Highway and Corporate" joint work mechanism has achieved remarkable results, ensuring the orderly traffic of vehicles on highways and toll stations within the managed area. During the year, we carried out one emergency drill on traffic interruption on half of expressways, one fire prevention drill in service areas and one fire prevention practice exercise of the company, as well as a total of six other drills, including special exercises on abnormal toll systems of toll stations, emergency response drills for traffic congestion, and trainings and exercises on the use of fire extinguishers and gas masks. It effectively enhanced the capabilities of joint rescue and comprehensive emergency handling on expressways and provided efficient and safe transport services to the public.



Under the "Traffic Police, Highway and Corporate" mechanism, drills are conducted for lane change amid traffic interruption on Xingliu Expressway



# 6.4

#### **BUILDING COHESIVE WORKFORCE**

GDI regards talents as the most precious and key elements of its corporate competitiveness. We are committed to creating a fair, just, safe and healthy working environment for employees, providing them with a competitive remuneration and welfare system, implementing a diversified talent development strategy and caring for employee growth. We build and establish a career platform to display skills and creativity and join hands with employees to achieve development together.

The Group strictly complies with all relevant labour laws and regulations such as the Labour Law of the People's Republic of China, the Labour Contract Law of the People's Republic of China, the Minors Protection Law of the People's Republic of China, the Law of the People's Republic of China on the Protection of Women's Rights and Interests, the Sex Discrimination Ordinance (Chapter 480 of the Laws of Hong Kong), the Employment Ordinance (Chapter 57 of the Laws of Hong Kong) and Occupational Safety and Health Ordinance (Chapter 509 of the Laws of Hong Kong). The Group has formulated and implemented a system with sound employment policies, including the Administrative Measures for Recruitment Management, the Management Regulations on the Implementation of MPF Schemes and Administrative Measures on the Avoidance of Relatives. The Group implements equal employment policies and prohibits all forms of discrimination in employment. It prohibits forced labour and child labour and guarantees equal labor rights of female employees. It establishes recruitment, development and promotion systems without discrimination over gender, race, religion and age and provides disabled employees with a barrier-free working environment to fully protect the rights and interests of all employees. During the year, we had a total of 7,856 employees <sup>(1)</sup>, with 475 employee resignations, the details of which are set out in the table below.



91

	2020	
	Total number of employees	Total number of resigned employees
Total number of employees by gender		
Male	4,974	246
Female	2,882	229
Total number of employees by employee category		
Senior	210	5
Intermediate	795	32
Junior	6,843	438
Temporary and short-term contract <sup>(2)</sup>	8	0
Total number of employees by region		
Mainland China	7,660	419
Headquarters and Hong Kong	196	56
Total number of employees by age group		
30 or below	2,009	274
31-40	2,499	79
41-50	2,379	55
50 or above	969	67
Total number of employees by employment type		
Formal contract	7,688	475
Outsourced contract	160	0
Temporary and short-term contract	8	0

Note:

- 1. The total number of employees is slightly different from that disclosed in the annual report (the total number of employees as disclosed in the annual report is 7,858), since the total number of employees of Teem Group in the annual report represents the average number for the year, while the corresponding figures for employees in this report represent the year-end number.
- 2. The total number of temporary and short-term contract employees is disclosed separately as Hotel Management Company and GDH Highway have not classified these employees into different employee categories.

#### FOCUSING ON STAFF DEVELOPMENT

With times and technology rapidly advancing, we always keep the sense of crisis. We deeply believe that only through continuous learning can employees and the Group maintain the motivation for sustainable development. We continuously increase input in training resources. Following the principles of fairness and openness, we have strictly formulated and abide by our internal policies such as the Staff Management Regulations, the Human Resources Management Regulations and the Performance Assessment Measures to provide our staff with diversified training courses and development plans. We formulate and tailor the training programmes according to their demands for professional skills and relevant knowledge for career development, in a bid to assist them reach their full potential and explore career development path. This also helps the Group create a rigid succession plan.

The Group has formulated the Interim Regulations on Management of Staff Training and Further Study and the Trainings Management Measures, which encourages the staff to participate in external work-related professional skill training, continuing education courses and seminars according to job requirements. It subsidies the relevant fees for the participating staff. During the year, employee training mainly comprised lectures delivered by internal professionals and professional training organised by external parties. The training category includes the necessary qualification training, job-related vocational training, job adaptability training and professional seminars, etc.

	Unit	2020
Total training hours	Hour	225,838.05
Average training hours per employee	Hour	28.75
Average training hours by gender/percentage of trained employees		
Male	Hour/percentage	25.10/98.79%
Female	Hour/percentage	35.04/99.83%
Average training hours by employee category/percentage of trained	l employees	
Senior	Hour/percentage	27.92/100%
Intermediate	Hour/percentage	24.76/99.25%
Junior	Hour/percentage	28.57/97.50%
Temporary , short-term contract and outsourced $^{\!\!(1)}$	Hour/percentage	29.11/100%

Note:

1. The data on training of temporary and short-term contract employees as well as outsourced employees is disclosed on a consolidated basis as Hotel Management Company and GDH Highway have not separated and classified these employees into different employee categories.

#### Water Resources Segment:

Water Holdings attaches great importance to the cultivation and development of talents and is devoted to providing all employees with professional trainings on knowledge improvement and promoting strategic synergies. It carries out comprehensive staff trainings by leveraging on GD Water College. During the year, the GD Water College focused on the direction of trainings and carried out training based on its model of "Four Capabilities", namely leadership, professionalism, transferability and safety. Based on the characteristics of the industry and the actual needs of employees, the GD Water College consistently optimises its training programmes and carries out innovation:

#### **Programme optimisation:**

On the basis of the senior talent cultivation scheme, professional management programmes, such as the "Ivy League(常青藤)" programme and other brand and high-quality talent training programmes, the GD Water College newly established the special programme on the development of talent pools to empower the junior management and enhance their professional capability and overall management quality. It also optimised training programmes for the new hires. Meanwhile, we also provide trainings for new employees of our subsidiaries and facilitate their adaptation at work from their campus life through the organic integration of centralised trainings, outdoor activities and training for new employees on operation and maintenance.

#### Form optimisation:

We introduced the "Brainstorming (群策群力)" action learning workshop in the training programme on the professional management of talent pools to solve key challenges on individuals, groups or organisations through group work and consistently summarise and learn during the optimisation of forms. Those courses that are well received will be promoted across all our water companies.

#### **Content optimisation:**

We organised the first Micro-Course Competition of Water Holdings. With the headquarters of Water Holdings as the pilot, we introduced 24 micro-courses in the form of workshops and all of them were included in internal courses on the online platform of GD Water College. We will continue to expand the scale, enhance the influence and introduce more outstanding programmes in the future.

During the year, the water resources segment has successfully held 18 comprehensive trainings at the company level and over 1,000 training sessions at the department level and subsidiary level, covering all employees.







#### **Case Study: GD Water Online College**

During the year, the pilot run of the online platform of GD Water College was rolled out with diversified functional modules and course, significantly improving the operational efficiency of the online platform and providing key supports to trainings.

- All functional modules are displayed clearly to facilitate users in achieving rapid functional positioning;
- Newly established "Sharing" and "Knowledge" modules promote internal exchanges and sharing of knowledge;
- Procure relevant courses and clearly display them in special modules based on the current management status of the company; and
- Combine the development of internal courses and procurement of courses. Over 500 external courses have been procured which will be introduced online in different themes in the future.



#### Property Investment, Development and Department Store Operation:

During the year, Teem Group strengthened the building of its talent, focused on the cultivation of middle management and implemented the "Swan Programme(鴻鵠計劃)". It was officially rolled out in September 2020 with training courses such as Development and Operation of Shopping Centre, Communications Skills of Managers, Business Strategic Thinking of Entrepreneurs and Course Design and Development. It provides trainees with a platform to share study results through book clubs and other forms.

Meanwhile, Teem Group continuously improved the mechanism on talent grooming at the headquarters and subsidiaries during the year. It optimised the grooming of outstanding employees through on-the-job practice and improved their business skills through accumulating management experiences at the frontline.

On the other hand, the Group formulated the plans on the establishment of talent teams, gradually facilitating the talent grooming mechanism. We specified the direction for the reasonable exploration and cultivation of talent pools and simultaneously improved the staff's knowledge and skills. We further cooperated with Jinan University in the establishment of Teem College to cultivate outstanding management and business backbone for all departments of Teem Group.

We wish to support the strategic development of the Group through various training opportunities. For example, Teemall Department Store conducted practical trainings on retails. Tianjin Teemall conducted trainings on professional skills, fire safety, rules and systems, laws and risk control to improve the professional skills comprehensively.

#### Hotel Ownership, Operation and Management:

Hotel Management Company is devoted to building a multi-dimensional training system with online and offline integration to boost hierarchical, three-dimensional and customised trainings, with an aim to achieving the ideal training results for every employee and improve their working capabilities.

During the year, due to the impact of the COVID-19 pandemic, Hotel Management Company held nine internal themed trainings covering financial management, project management, marketing skills, legal risks, system implementation, document turnover, incentives and restrictions to improve the holistic skills of employees at the headquarters and strengthen the coordination and communications among all departments. Through the programmes, we trained up the management capabilities of the middle-rank employees at the headquarters of Hotel Management Company. It helped to solidify the professionalism of our employees at the functional departments of the headquarters by specifying the key linkages and solutions in their routine work. It is expected to improve the overall working efficiency of the headquarters of Hotel Management Company and further released the potential of employees.

On the other hand, we provide customised training courses for employees at different levels through the online college according to the job responsibilities and development needs of employees at different positions. There are both compulsory and elective courses which offer great flexibility to employees. The trainings cover ten categories, namely, leadership, specific enhancement, office software, daily services, etc., targeting on the advancement of the professional capabilities of employees. During the year, the online college offered trainings with a total of 34,729.5 hours and an average of 39.15 hours per employee.

#### Energy Projects:

During the year, Zhongshan Energy took reference with the external training professions on the content development and instruments of its training courses. It mobilised its professional course developers for the development of 12 selfinitiated courses through centralised development and offline optimisation, comprehending the logical connection of courses and securing the quality of trainings for its employees.

Meanwhile, Zhongshan Energy transformed the Double Eagle Programme(雙鷹計劃) into the Eagle Programme (鷹 計劃). It revamped its talent development approach, the selection and cultivation method, special programmes, application of results and other core contents of the training programme, establishing a better and clearer talent development direction in the future. It also adopted different training programmes based on employees' ranking/ profession for integration into its annual training programmes.

In addition, we achieved breakthroughs in conducting needs assessment on training through the application of document analysis, online questionnaire, interview and other scientific methods, further separating the key and routine training programmes based on production and operation needs. For example, we proposed trainings on marketing skills for electricity and gas supply sales staff, liquid ammonia operators, new employees, the development of phase-2 courses and other key programmes to improve the relevance and effectiveness of programmes. In order to raise the completion rate, we introduced the new model of "DingTalk Live" lecturing and reasonably arranged programmes to overcome the impact of the pandemic and boost the training attendance.

As at December 2020, the completion rate of the trainings under the plan at the company level were close to 90%, representing a significant increase compared with that of 2019. Meanwhile, Zhongshan Energy carried out 55 training programmes at the company level with a total of 1,025 participants.

95

#### Roads and Bridges:

To improve the job skills and working efficiency of employees and promote a positive learning atmosphere, GDH Highway upgraded the Implementation Rules for the Management of Employee Skills Enhancement and Rewards during the year, specifying the skill requirements in terms of academic qualifications, degrees, titles, vocational qualifications, amount of incentives and years of service. The rules also set out the detailed reporting, approval and review procedures.

GDH Highway has adopted the training model with internal trainings as the focus and supplemented by external trainings and actively promoted the reporting for vocational qualifications to improve the comprehensive quality and professional skills of employees of the company. Meanwhile, the Group required all departments to actively conduct internal trainings and invited external training experts to improve the skills of management staff and enhance the staff's management capability, literacy, job skills and leadership from the perspective of the positioning of management roles, the identification of development barriers of management and core working capability of management.

In addition, GDH Highway continued its efforts in developing talent pools and promoting talent grooming. It enhanced employees' comprehensive quality and business skills by carrying out trainings on production safety, policies and regulations, systems and standards as well as civilised services. During the year, the Toll Management Department conducted five centralised trainings with a total of 2,804 participants. Meanwhile, we actively carried out internal competitions. As of 2020, there was a pool of 26 young talents in the Toll Management Department. We promoted two deputy station managers, five supervisors and seven toll collection leaders through internal competitions.

#### EQUAL OPPORTUNITIES AND LABOUR RIGHTS

The Group strictly complies with laws and regulations such as the Labour Contract Law of the People's Republic of China, the Social Insurance Law of the People's Republic of China as well as the Employment Ordinance and the Employees' Compensation Ordinance of the Hong Kong Special Administrative Region. It has formulated and implemented employment related rules and policies that comply with national and regional laws and regulations. The Group attaches great importance to protecting the basic rights and interests of all employees and is devoted to establishing a diverse and equal working environment that is free of discrimination.

Meanwhile, adhering to the philosophy of "paying for positions, performance and capability", we ensure our salary and benefit packages are competitive in the market. These include annual leave, sick leave, maternity leave, paternity leave, marriage leave, bereavement leave and casual leave, as well as MPF contributions, pension insurance, medical insurance, work-related injury insurance, unemployment insurance, maternity insurance and other insurance for the employees. Meals and overtime transportation subsidies are also provided in daily work.

In addition, GDI cares about the physical health of employees. We arrange a comprehensive physical examination and influenza vaccination for employees every year and always pays attention to the health of the employees. As a responsible corporate, we have not implemented significant job cuts affecting more than 1,000 employees or more than 5% of the total workforce in the past three years to ensure stability in employment.

#### Water Resources Segment:

Water resources segment has robust employment systems in place, including the Remuneration and Welfare Management Policy, the Performance Assessment Measures and the Employee Reward and Punishment Measures to clearly set out the employees' remuneration structure, standards and distribution as well as welfare management.

For new projects during the year, we adhered to the principle of "no decrease in remuneration, an increase by one level" and successfully introduced a new remuneration system to ensure the stability of our team:

- **Remuneration orientation**: Remuneration based on duties and responsibilities as well as performance, breaking the old concepts on remuneration based on years of service, seniority and professional titles;
- **Differential pay raise**: Differential pay raise for employees at different levels, of which core and backbone employees with more responsibilities enjoy higher raise;
- **Distribution of performance-based remuneration**: Performance-based remuneration to stimulate the working enthusiasm.

Water Holdings has fully implemented the professional manager management mechanism on the leaders of subsidiaries during the year in order to advance the high-quality and high-speed development of the water resources segment. Through the adoption of the integrated management of the headquarters, it specified the tenure of professional managers and their targets and formulated detailed performance appraisal standards to stimulate long-term performance improvement.

#### **Property Investment, Development and Department Store Operation:**

Teem Group has implemented the Manual of Employee Performance Management, the Regulations on Salary Management and the Management Regulations on Working Hours, Leaves and Welfare and other rules and systems during the year to consistently optimise employee appraisal methods and improve the efficiency of performance management. The employees are offered fair working hours, leaves, remuneration and benefits and the rights and interests of employees at all levels are ensured. It upholds the principles of openness and transparency, fairness and justice to encourage the employees to improve their abilities and performance continuously.

Based on national, provincial and municipal requirements on the prevention of the COVID-19 pandemic, Teem Group appropriately adjusted the attendance requirements of employees and fully achieved online non-contact punch-in and effectively safeguarded and guaranteed the labor relationship and staff health during the outbreak of the pandemic. At the same time, Teem Group formulated corresponding proposal on remuneration to guarantee no suspension of salary payments or decrease in salaries, providing strong guarantees to the basic interests of employees.

In addition, Teem Group amended the methods on the selection of annual outperforming units and individuals at its headquarters based on the plans on the selection of outperforming units and individuals. Through the systems on the selection of outperforming units and individuals, it actively motivated employees at work, boosted the enthusiasm of employees to become role models and tapped their working potentials to ensure the stable improvement of working efficiency.

#### **Hotel Ownership, Operation and Management:**

Hotel Management Company has formulated employment policies, such as the Management Measures on Employee Benefit Expenditure of Guangdong International Hotel Management (China) Limited, the Measures for Labour Relations and Administration of Social Insurance of Guangdong (International) Hotel Management Holdings Limited, the Leave Management Requirements of Guangdong (International) Hotel Management Holdings Limited and the Performance Assessment Management Measures of Guangdong (International) Hotel Management Holdings Limited to ensure that employee remuneration and benefits are protected. Meanwhile, the Hotel Management Company continues to strengthen its reforms of internal management and improves the remuneration system for professional managers by benchmarking the actual remuneration level of Hotel Management Company against the market remuneration level. The remuneration of different levels has been optimised and the transparency of remuneration and welfare is undergoing continuous improvement.

#### **Energy Projects:**

During the year, Zhongshan Energy completed the amendments to the Management Standards on Employee Selection and Appointment of Zhongshan GDH Energy Co., Ltd. and the Recruitment (Competitive Employment) Management Measures of Zhongshan GDH Energy Co., Ltd. to ensure the fairness, compliance and effectiveness of the systems on the selection and appointment of employees.

We truly appreciate that outstanding talents are core forces for corporate development. During the year, we carried out annual promotion appraisal on internal employees and 27 and 74 employees were respectively promoted vertically and horizontally. Meanwhile, we completed the internal job re-allocation for 12 staff, including the head of the Materials Management Department and the deputy head of the Operation Department, through internal competition. For the recruitment of external talents, we actively responded to the policies and requirements on expanding recruitment and stabilising employment, boosted publicity and communications with partnering websites and colleges, integrated online (video) and offline recruitments and actively conducted campus and social recruitments to attract talents.

The company initiated an appraisal programme for professional technical staff to set out explicit standards and systems on the employment of "professional technical staff" and management of job positions. It introduced appraisals by third-party agencies to assess the comprehensive capabilities on technologies and skills and performance of existing professional technical staff. It understood the skills of existing professional technical staff through the appraisal, set out directions for improvement and enhancement and provided important reference for the formulation of resolutions.

We also consistently improve our remuneration system and amended the Management Standards on Performance Appraisal of Zhongshan GDH Energy Co., Ltd. With focus on production, we improved the remuneration on certain positions/ranks and increased the number of positions with performance-based bonus to improve the flexibility and adaptability of remuneration and open the career path for employees.

#### **Roads and Bridges:**

GDH Highway continuously improved employment management systems, such as the Implementation Rules for Salary Management, the Management Measures for Performance Appraisal, and the Management Policy for Selection and Appointment of Key Personnel. It advanced the implementation of the annuity plan in an orderly manner and consistently optimised the remuneration and welfare systems for employees to improve corporate competitiveness and cohesion and further enhance the sense of belonging and the passion of employees.

During the year, GDH Highway carried out "thorough survey" on leaders, comprehensively and deeply sorted out and improved the systems on rank, remuneration and appraisal. It allowed employees to have a clear understanding of responsibilities of positions and occupational development paths. It also established a remuneration incentive mechanism based on their jobs, abilities and performances to promote the organic integration of the systems on rank, remuneration and appraisal. In addition, we completed the revision of 20 personnel policies covering systems on rank, remuneration and appraisal and the adjustment to the staffing of all departments and the ranks of relevant employees.

#### **STAFF CARING ACTIVITIES**

Upholding the "people-oriented" tenet, the Group takes full consideration of the needs of employees and ensure employees are provided with benefits in various aspects of life and work. We strive to promote work-life balance and create a healthy, harmonious and pleasant working environment for employees.

During the year, we allocated substantial resources to actively carry out a variety of sports and cultural activities to enrich employees' leisure life. While ensuring the welfare of employees, each segment attaches great importance to providing assistance to employees in need and makes every effort to help them shrug off difficulties. Through disbursing consolation money, home visit and care and other means, we provided comprehensive support at both financial and spiritual level and brought warmth and care to employees in need.

In addition, we also provided holiday greetings to front-line employees on traditional festivals such as the Mid-Autumn Festival, Dragon Boat Festival and Spring Festival to promote mutual communication among employees and vitalise and motivate employees through visits and communication and distribution of holiday gifts, thus enhancing corporate cohesion.

#### Water Resources Segment:

The water resources segment cares about its employees by strengthening its attention to and concern over their wellbeing at different levels. Through organising regular wellbeing events and visits, we remain committed to conveying our message of consolation to our employees and sharing living experience with them.



#### **Case Study: Visits to Retired Employees**

In 2020, Yue Gang Water Supply paid 196 visits to its retired employees, particularly on their birthday with blessing to 103 retired employees aged 80 or above, expressing our heartfelt gratitude to their previous contributions to the company alongside our sincere concern over their wellbeing.





#### Case Study: Consolation for Front-line Employees During the Pandemic

During the year, Yue Gang Water Supply and its labour unions prepared and financed a special fund of RMB400,000 and a labour union fund of RMB360,000, respectively, in support of employees involved in the prevention and control operation for the COVID-19 pandemic. We also extended our support and concern to the employees involved in the resumption of work and production by communicating our caring message to hearten our frontline employees involved in pandemic prevention and control, which was expected to bolster

their confidence and determination to win the combat against the pandemic.

In addition, the water resources segment has established employee communication channels to encourage open communications across the companies. Employees may provide management with feedback by phone calls, emails and faceto-face meetings to further safeguard their rights and interests. This helps achieve the effective execution of the supervisory function of employees and encourage the management to make continuous improvement.



#### Property Investment and Development and Department Store Operation:

Teem Group takes initiatives to truly listen to our employees at the grassroots level, while proactively enabling employees perform their duties well. The messages of care and warmth have been relayed to our employees in need so that each employee can experience the company's care and hence have a better sense of belonging and happiness.

HIRA .	AP-

#### **Case Study: Chinese New Year Home Visits**

In 2020, the leaders of the labour unions of Teem Group and the Department Store Operation, acting on behalf of their respective labour unions, visited two employees of the Department Store Operation with consolation funds to them, aiming to encourage and support them to overcome the challenges and stay strong during their recovery.





#### **Case Study: Consolation During the Pandemic**

In April 2020, to effectively assist our employees in tackling challenges during the pandemic, the labour union of Teem Group conveyed its messages of care and love to the employees in need by delivering rice, milk, paper towels and cooking oil to a total of 50 front-line employees in need, which alleviated the financial burdens of the rising price on the basic living of the employees in need during the pandemic. These actions

encouraged our employees to remain optimistic and positive at work, empowering them to tackle the challenges and overcome the difficulties at times. The labour union of Teem Group always places the best interests of the employees in need at heart, by adopting the meticulous and practical approach to provide protection to employees in need, resolving their problems in time and helping them weather through this special period smoothly and safely.



#### Hotel Ownership, Operation and Management:

The Hotel Management Company continues to strengthen communications by providing employees with a variety of communication channels and ensuring smooth communications, open and transparent information and information interaction across the company. It also guarantees timely feedback and handling of problems or concerns raised by employees. In the meantime, we are considerate of the wellbeing of our employees by offering gifts and greetings at festivals including Spring Festival, Women's Day, Dragon Boat Festival and Mid-autumn Festival and distributing refreshment in summer. In addition, we distributed festive benefits in kind with caring and blessing messages to union members.

During the year, the Hotel Management Company facilitated the development of its labour union by electing staff representatives via voting to exercise management power on behalf of all employees, including the powers to deliberate on major corporate decisions and supervise the administrative leadership, thereby safeguarding the employee legitimate rights and interests. In addition, the Hotel Management Company and its hotels installed employee feedback mailboxes in public areas and set up an e-mail account for the general manager with a designated officer to maintain regular check and collection, which would be timely submitted to the company's management for review, handling and responding on a case-by-case basis. Besides ensuring timely handling of employee feedback and suggestions, we provided rewards in respect of positive suggestions that facilitate management. On a monthly basis, the general manager seminar was convened to collect feedback and suggestions from employee representatives at all levels.



Pandemic Combat by "My Exercise Record Competition"



**Employee Birthday Party** 



**One-day Theme Park Trip** 

#### Energy Projects:

With considerations of employees' physical and mental health, Zhongshan Energy strives to maintain harmonious workplace conditions, deepens its understanding of the expectations from our employees and enriches leisure activities for our employees. During the year, we organised various events, including the Mid-Autumn Festival Park Tour, One-day Theme Park Trip, and Sanxiang Wellness Tour in Zhongshan. In addition, we also held the Staff Sports Day during the year, which attracted over 200 employees across the company. Twenty-three union groups formed different teams and participated in two major categories of activities, including basketball, badminton, table tennis, and rope skipping, which enriched their spare-time activities and improved their relationship with each other.



**Staff Sports Day** 

#### Roads and Bridges:

In persisting in the philosophy of "prioritising employee interests", GDH Highway actively carries out campaigns focused on employee care and concern, including maintaining communications with our employees by on-site visits, grassroots research, seminars and routine work meetings to understand their expectations and thoughts.

#### **Case Study: Assistance to Employees in Need**

Every year, GDH Highway pays visitations as a message of consolation to the people in need during traditional festivals, especially for employees with illness and confiding conversations with the employees in need. In 2020, we paid 34 visits to employees in need with total consolatory money amounting to RMB18,300.





#### **Case Study: Caring for Frontline Employees**



In September 2020, GDH Highway arranged consolation to the frontline construction workers of Xingliu Expressway. Refreshments including herbal tea, mung bean dessert, milk, fresh melons and other fruits were distributed to the workers at road renovation project, supporting them to withstand the hot weather.







#### **Case Study: Cultural Performance**

In February 2020, GDH Highway held the staff cultural performance titled "To Achieve New Glories in New Era" to enrich the cultural life of our employees, while enhancing employee cohesion and gravity. The event also helped cultivate their positive attitude, perseverance and fighting spirit, showcasing the unique style and personality of the employees of GDH Highway and motivating employees to work with passion.



#### **Case Study: Love for Our Courageous Female Employees**

In March 2020, GDH Highway launched the online knowledge competition of "Love for Our Courageous

Female Employees Amid the Pandemic Combat" in celebration of the Women's Day on 8th March, supporting our female employees to acquire more knowledge about protection of their rights and interests, as well as pandemic prevention and control through a quiz contest. It was a memorable and meaningful day for all.



## 6.5

#### **GIVING BACK TO SOCIETY AND CREATING VALUE TOGETHER**

#### PANDEMIC PREVENTION AND CONTROL

In 2020, the COVID-19 pandemic continued to pose a great challenge to the world, weighing on countries in various aspects, including economy, people's livelihood, and public health. Confronted with the pandemic, the Group remained highly vigilant and in strict compliance with the relevant requirements for pandemic prevention and control as stipulated by the government, while making every effort to fulfil its corporate responsibility.

We set up the leading group for the prevention and control of COVID-19 pandemic and formulated the GDI Emergency Response Plan for Prevention and Control of COVID-19 pandemic. The rules and regulations governing the emergency management of production safety were revised for each business segment and emergency measures for production safety during the pandemic were strictly implemented. According to the emergency response plan, each business segment would seek to unite all members to win the battle against the pandemic by leading its employees in carrying out effective prevention and control of the pandemic and their own protection measures, ensuring sufficient anti-pandemic protection supplies and strengthening the publicity and education of its employees and the public on pandemic prevention and control.

#### Water Resources Segment:

Whilst continuing to deliver water supply services amid the pandemic, our water resources segment has formulated and timely updated its internal documents, including the Work Guidelines on Water Companies in Operation During the Pandemic, the Notice on Strengthening Operation Management of Sewage Treatment Plants of Subsidiaries During Pandemic, the Emergency Monitoring Plan of Dongshen Water Supply Project in Response to the COVID-19 Pandemic and the Work Plan on Post-Holiday Pandemic Prevention and Control Response Plan for Resumption of Production and Work by the Water Resources Segment to provide specific guidelines on pandemic prevention for water services across different regions and protect our operations from being affected by the pandemic.

All water companies of the water resources segment are required to implement more stringent monitoring and testing measures for water plants, water supply networks, secondary water supply facilities, etc., all of which is aimed to enhance daily cleaning, maintenance, sanitation and disinfection of the environment around water supply facilities, disinfection facilities and production areas. By strengthening the control of water disinfection process and increasing the number of inspections and frequency of monitoring in respect of key indicators required for water purification, the water resources segment ensures the provision of safe, worry-free and high-quality water to the community and the general public. We conduct surprise inspections of our subordinate water companies' pandemic prevention efforts by investigating into the online video surveillance and making random telephone calls to check with grassroots employees. In addition, a dedicated team is established to evaluate the pandemic prevention plans and work and production resumption plans of each unit. As the pandemic conditions was gradually stabilising, we have adopted a normalised management approach in pandemic prevention and control, which has been included as an important agenda in the monthly and quarterly inspections. In case of any issues identified during the inspections, we will urge immediate rectification and conduct assessments.

On the other hand, we compiled pandemic prevention guidelines for office areas and standardise pandemic prevention at workplaces following the resumption of work and production, with supervision and inspection routines implemented and emergency response drills carried out at our main complex of the company.

Furthermore, we conduct regular training sessions on pandemic prevention to raise employees' awareness of pandemic prevention. Every employee can participate in online courses on pandemic prevention and control in the GD Water Cloud Classroom. In addition, we have been disseminating pandemic prevention information to our employees through WeChat and other online methods in a timely manner since the Chinese New Year, and sending request to each unit on organising pandemic prevention training before the resumption of work. This ensures the publicity and implementation works are in place. In order to further enhance employees' attention to pandemic prevention, officers responsible for pandemic prevention are appointed in each unit to track the whereabouts of key personnel, update information in a timely manner and report to the pandemic prevention work group of the water resources segment every day. All employees who resume work and production are required to enter into a "Letter of Commitment to the Prevention and Control of COVID-19" to secure the successful resumption of work and production.





#### **Property Investment and Development and Department Store Operation:**

Following the pandemic outbreak, Teem Group has established a leading work group in response to the COVID-19 pandemic in a timely manner to centralise the leadership of the pandemic prevention and control work. In light of the pandemic prevention requirements set by the government and Teem Group, and with reference to the actual operation of Teem Group, Teem Group has established various systems, including the Emergency Response Plan for Outbreak of Infectious Disease and Incidents of Mass Unexplained Diseases and Post-Holiday Pandemic Prevention and Control Response Plan for Resumption of Work and Production to ensure that the pandemic prevention measures are efficient and effective.

During the pandemic period, the business establishments of Teem Group continued to maintain their business operations and cooperated with tenants on overcoming various challenges to safeguard adequate daily supply. To this end, we strengthened various pandemic prevention and control measures, including additional guard posts at entrances and exits of the business premises, body temperature checks on personnel entering and leaving the premises and mask requirements. In addition, indoor ventilation was enhanced, while more disinfections were carried out at public areas and air conditioner filters. Furthermore, the company promoted pandemic prevention and control using LED screens, display boards and WeChat official account, aiming to help visitors minimise the risk of infection.



#### **Case Study: Online Applet Marketing Campaign**

Teemall Department Store facilitated the integration of online and offline sales channels by creating a selfbuilt supermarket platform and launching live sales on the online mini-programme, aiming to actively adjust marketing models and launch various preferential, interactive and online exclusive activities. At the same time, when the pandemic was under control and production activities resumed, we actively participated in promotion activities organised by the government to restore economic activities in line with the government plans, such as the Flower City Sales, the first Guangzhou Live Streaming Festival and the National Consumption Promotion Month. Furthermore, we actively expanded our customer communication channels, which help increase customer visits, accelerate customer flow and business recovery and restore public consumption confidence.

#### Hotel Ownership, Operation and Management:

The Hotel Management Company continued to strengthen its responsibility during the pandemic period with its active engagement in pandemic prevention and control work by issuing Notice on the COVID-19 Pandemic Prevention and Control, Guidelines on the COVID-19 Pandemic Prevention and Control and Emergency Response Plan for Suspected Cases Caused by COVID-19 Infection. Each hotel was required to establish their special prevention working group and follow up on the establishment progress. Furthermore, various prevention and control measures have been implemented to strengthen the pandemic prevention and control, enhance its emergency response capacity and prevent the pandemic from spreading in a timely and effective manner.

We required all hotels to continuously improve the hygienic conditions of public areas and elevators, carry out disinfection every two hours and check and record the body temperature of all guests, staff and tenants of our leased units at the entrances of our hotels. In addition, enquiry counters at the lobby were set up to provide alcohol disinfectants and disposable medical masks to those in need. At the same time, we kept up with monitoring the health of all check-in guests, and immediately took separate quarantine measures for anyone detected with a fever in accordance with the strategy of "early detection, early reporting, early quarantine, early diagnosis and early treatment".



In addition, we also conducted temperature checks and observations on employees returning to work and only the employees free from abnormal health conditions were allowed. They had to submit record of their recent travel history and flight and high-speed train numbers. We also strictly enforced the 14-day quarantine rule for our employees returning from high-risk areas to reduce the risk of the viral transmission.
#### **Energy Projects:**

Zhongshan Energy set up a pandemic prevention and control team in a timely manner and formulated and strictly implemented the Emergency Plan of Zhongshan GDH Energy Co., Ltd. for Prevention and Control of COVID-19 Incidents, the Work Resumption Plan of Zhongshan GDH Energy Co., Ltd. for Prevention and Control of the COVID-19 Pandemic after Chinese New Year, the Emergency Response Plan of Zhongshan GDH Energy Co., Ltd. for Suspected Cases Caused by COVID-19 Infection and the Work Plan of Zhongshan GDH Energy Co., Ltd. for Normalised Prevention and Control of the COVID-19 Pandemic. We collected personnel information, clarified the requirements for returning to Guangdong and formulated plans to obtain timely reporting of the returning details and formulate emergency responses. Furthermore, we guided our stranded employees to return to their posts in a safe and orderly manner. To protect the health of all employees at the plants, we reviewed and updated the information of personnel and their health conditions on a daily basis and issued the entry and exit permit after verification.

#### Roads and Bridges:

GDH Highway has implemented important instructions and work arrangements concerning pandemic prevention by the Company. Specifically, it issued the Notice Concerning Normalised Pandemic Prevention during the Mid-autumn Festival and the National Day Holidays and Notice Concerning Standardised Health Code Scanning and Inspection. It enhanced the supervision of pandemic prevention work by staffs and contractors and set up additional check points for pandemic prevention. Emergency response plans were also developed for pandemic prevention. Staff registration, COVID-19 testing and counting of anti-pandemic supplies as well as filing with the local government authorities were conducted.

As for the operational and office environment, we have arranged regular sterilisation for areas under management, toll stations, canteens, dormitories and other areas and required employees to implement arrangements such as daily body temperature monitoring, wearing masks and gloves, reducing gatherings, limiting size of meeting. Meanwhile, we have a health code scanning system in place for the control of access by all individuals and have developed a systematic personnel management plan on pandemic prevention. We required employees to report their whereabouts and health conditions on a daily basis and urge them to actively report whether they have close contact with overseas personnel and their health conditions. Before travelling to other provinces, employees were required to report in advance. We also issued alerts for high and medium risk areas and encouraged employees to avoid traveling to these areas. If travelling is necessary, then the employees concerned must plan in advance and provide the "Green Health Code" and a 7-day "Certificate of Negative Nucleic Acid Test Result".



**On-site Body Temperature Check** 

#### SUPPLY CHAIN MANAGEMENT

GDI is committed to working with our business partners and suppliers to pursue sustainable development and minimise the environmental, social and governance risks in the supply chain. With the Policy on Sustainable Supply Chain of Guangdong Investment Limited revised, we not only encourage and prioritise our cooperation with suppliers who have environmental and safety certifications, but also require suppliers to comply with relevant requirements, thus incorporating sustainable development concepts into our business contracts and performance evaluation.

We also require each of our suppliers to enter into an integrity agreement with us in the tender documents and procurement contracts of products and services in all business segments, which clearly stipulates the joint responsibility of both parties for integrity and the penalty for any breach so as to establish and implement highstandard business ethics practices. We will immediately terminate the employment contracts with those responsible employees who falsify, collude with the suppliers or accept benefits from the suppliers in the procurement process. For those who commit a serious violation, once verified by the Internal Audit Department, the personnel and relevant department will be held accountable.

Additionally, GDI continues to promote local supply chain. Under the same terms and conditions, we would prioritise local suppliers to establish a mutually beneficial partnership so as to reduce our carbon footprint in the transportation of materials and promote local sustainable economic development.

By doing so, we hope to enhance supply chain management as well as the sense of social responsibility and the compliance performance of each business partner in the supply chain, all under a transparent and fair supplier selection and management mechanism.

#### Water Resources Segment:

As for the water resources segment, we continued to implement and monitor the disciplines and responsibilities of various departments and personnel involved in tendering and procurement based on the Management Measures for Tendering and the Management Measures for Procurement, which specify the same personnel should abstain from both tendering and bid evaluation in order to ensure the bid evaluation is carried out in a fair, just and open manner. Meanwhile, we audit the tendering and management work on a regular basis, including auditing whether the tendering system, process and work guideline are scientific, reasonable and effective as well as its implementation. A meeting is held by relevant working groups on an annual basis to rate the rated objects in accordance with the List of Rating Criteria for Suppliers. Suppliers will be assigned with different grades according to their rating results, which will serve as the basis for determining chance of future cooperation with relevant suppliers.

During the year, the water resources segment successively carried out special actions such as mobilising the business units to conduct self-examination and correction of tendering and procurement practices and joint inspection by the water segment, during which various issues were found and reported. It also organised relevant special training programmes, required each of the relevant business units to rectify and focused on the screening and integration of key tendering and procurement management issues of the segment. All these efforts have laid the foundation for further improving the level of tendering and procurement management.

In addition, we developed the electronic tendering and procurement platform, which has already been put into operation. We will optimise and improve relevant functions of the system based on our business needs and the operating conditions of the system in the future in order to enable IT technologies to play a better role in compliance management of tendering and procurement and improve tendering and procurement efficiency. We anticipate to reduce the overall operating costs of the company by leveraging the electronic business model.

#### Property Investment, Development and Department Store Operation:

Teem Group has developed and implemented its Procurement Management System Manual to standardise its procurement procedures and take the optimised supplier database and blacklist as a key reference for our procurement. Teem Group has also sorted out and classified suppliers based on the supplier database and supplier evaluation results, which effectively improved the comprehensiveness and accuracy of the supplier database and further enhanced the work efficiency for future supplier management. In addition, to combat commercial bribery, all suppliers are required to sign the Commitment to Honesty and Integrity, which helps to create a fair, orderly, credible, honest and transparent cooperative environment.

We provide all of our employees with special training on tendering and procurement to ensure the compliance of each project and improve the transparency and fairness in our supply chain operations.

#### **Hotel Ownership, Operation and Management:**

During the year, Hotel Management Company maintained effective risk and benefit management, strengthened the coordination and management of suppliers and guaranteed the quality of procurement by sorting out the systems and management guidelines in tendering and procurement management, including the Implementation Rules for Tendering and Procurement, the Management Measures for Engineering Project Tendering, the Rules for Materials Procurement and Approval Procedures, the Supplier Management Measures and the Management Measures for Centralised Procurement. We conducted a comprehensive and whole-process appraisal of the existing suppliers for centralised procurement projects, covering product quality, time efficiency, after-sale services, product research and development capabilities and etc., in order to make an objective assessment and inspection of the products and services supplied by them.

We continued to strengthen the implementation of the Transparent Procurement Strategy and be open and transparent in the implementation of relevant procedures of Hotel Management Company and holding companies under the supervision of audit and other departments throughout the procurement process so as to ensure procurement work is transparent and efficient.



#### Energy Projects:

Upholding a "mutually beneficial, honest and responsible(共贏立心、廉潔立身、當責立行)" corporate culture, Zhongshan Energy optimised the tendering process during the year, making relevant workflow more reasonable and time-and-cost-efficient. We explicitly set out the tendering management responsibility, scope of tendering, tendering method, form of tendering organisation and other management elements in the whole process in the Tendering Management Standard of Zhongshan GDH Energy Co., Ltd., Management Measures for Day-to-Day Operational Expenditure of Zhongshan GDH Energy Co., Ltd. and Coal Procurement Management Measures of Zhongshan GDH Energy Co., Ltd. and the execution of relevant works in a systematic manner and to standardise the integrity criteria in the whole tendering process.

Meanwhile, we continued to devote efforts in staff integrity and self-discipline education, and chose open procurement platform as the company's materials procurement platform under the principles of open, fair and just price comparison, effectively avoiding the occurrence of integrity risk incidents and saving procurement costs. All suppliers are rated on an annual basis and those suppliers which received an annual average scores below the standard would be listed as unqualified. We would remove the names from the list of qualified suppliers on the platform and suspend any business dealings with them for one year.

In addition, in order to ensure the stability and price control of key operational supplies, we continued to strengthen communication and interaction with coal suppliers by paying visits to those we had cooperated with and inviting them to visit our power plants, with the aim of promoting mutual understanding and enhancing confidence and engagement. This provides sufficient reference for future cooperation and tendering and procurement process and is conducive to price competition and reducing procurement costs. We have strictly implemented the Procedures for Optimisation of Coal Transportation by Vehicles jointly with internal departments in order to strengthen the supervision over safety promotion to transportation units and personnel in the supply chain and their behaviours, and impose penalties on transportation service providers failing to meet the safety requirements, thereby ensuring the safety of supply chain personnel.

#### Roads and Bridges:

GDH Highway has put into practice the Implementation Rules for Tendering Management, the Management Requirements for Goods and Services Procurement and the Management Measures for the Evaluation of Contract Performance. Meanwhile, key businesses and sensitive positions are subject to holistic management in accordance with the management policies and internal control system such as the Regulations on Discipline Inspection and Supervision and the Accountability Management Measures. By carrying out contract performance evaluation of construction contractors, we have evaluated the performance of each construction contractor, effectively enhancing the construction contractors' ability to perform contracts and improving the self-discipline and performance of the construction contractors.

During the year, GDH Highway engaged third-party organisations to monitor the environmental protection and water and soil conservation of the road renovation project, regularly issue monitoring reports and instruct the construction units to perform their work in an orderly manner so as to avoid and reduce the impacts on the environment and surrounding communities during the construction period. There were no complaints received against the construction units over the past year. The number of suppliers by region during the reporting period is as follows:

Region	2020
North China	249
Northeast China	8
East China	261
Central China	29
South China	2,061
Southwest China	19
Northwest China	3
Hong Kong, Macau and Taiwan	31
Overseas	4

#### ENGAGEMENT IN COMMUNITY BUILDING

GDI firmly believes that business development is inextricably connected with social prosperity and stability. Hence, we have been actively fulfilling our corporate social responsibility, expressing our concern and care for different community groups, carrying out public welfare activities and striving to help those in need. We have formulated the Policy on Charity and Public Welfare Activities to strengthen the management of the Group's community investment efforts and that of our business segments. During the year, our employees were encouraged to give back to our communities and care for disadvantaged groups through various charitable activities such as fundraising, promotion of ecological protection, supporting and participating in blood donations, thus bringing long-term benefits to the community and promoting the economic and civil development of the communities.

We actively invested resources in fulfilling our social responsibilities. During the year, our volunteer activities totalled 93,555 hours and the total donations amounted to RMB20.53 million.

#### TARGETED POVERTY ALLEVIATION

While developing its own business, GDI actively responded to the national call to participate in targeted poverty alleviation activities. It established a strong sense of corporate social responsibility and fulfilled corporate social responsibilities with practical actions.





#### Case Study: Waterworks Renovation Project in Dongbei Village, Lianzhou City

On 28 April 2020, the waterworks renovation project located in Dongbei Village, Dongbei Town, Lianzhou City, Qingyuan, Guangdong Province and constructed by Zhaoqing HZ GDH Water Co., Ltd., was successfully completed, bringing reliable, safe and quality tap water to more than 10,000 villagers.

Dongbei Waterworks had frequently experienced water cut-off and water outage due to aging facilities and low reservoir level, which significantly affected the daily lives of the villagers. As its paired-up assistance unit, the Group attached great importance to the situation in Dongbei Village. The Group utilised its own fund and the technical strength of Water Holdings to carry out upgrading and renovation works, including the renovation of pipes for untreated water, upgrades of water intake pump rooms, optimisation of water production processes, setting up of an additional aseptic water quality laboratory, etc.

The completion of the Dongbei waterworks renovation project has not only enabled the Dongbei villagers to use "reliable water", but also provided them with many public welfare positions to the benefit of increasing employment rate and income of Dongbei villagers. Meanwhile, the revenue generated by the waterworks go to the village collective, which will be specially used for projects for public welfare and coordinated income sharing among poverty-stricken households so as to help with the poverty alleviation in Dongbei Village in the long term.





Quality of water before and after the renovation





Interior of the service hall before and after the renovation

28

#### **Case Study: Poverty Alleviation Activities and Purchasing Poverty Alleviation Products**

In June 2020, GDH Highway mobilised its staff to take part in poverty alleviation activities and student assistance activities themed "Hopeful Spring Bud" in Dongbei Village, Dongbei Town, Lianzhou City, Qingyuan, Guangdong Province.



#### **CONTRIBUTION TO SOCIETY**

In order to promote development together with the local community, GDI actively organised charitable activities with various communities and non-profit organisations. We care for the disadvantaged groups, support community activities and carry out disaster relief and anti-pandemic actions.

#### Case Study: Charity Sale Activity to Support the Elders in Distress

In January 2020, Teemall Department Store and 12 co-brands of the Teemall Store — Beijing Road Branch, together with the Social Work Service of Beijing Street, carried out a charity sale activity named "Love and Care Flower Market" in the year of the rat to raise money for the "Living in Contentment" old building renovation project and "Elderly Care Home" support for elders in distress project. Both projects aim to improve the quality of life of the beneficiary elders. Through this activity, we fulfilled the wishes of 123 poverty-stricken households and installed handrails for 954 households.





#### **Case Study: Chinese Couplets Giveaway for New Year Celebration**

On 15 January 2020, Teem Group invited its staff to join them in the Chinese Couplets giveaway activities to celebrate Chinese New Year with residents of the Shawan Community in Panyu. During the activity, we, together with community workers and calligraphers, wrote and gave away Chinese couplets to residents, enriching the cultural life of residents during the festival.





#### Case Study: Voluntary Garbage Sorting Publicity Campaign

In January 2020, Teem Group held a voluntary garbage sorting publicity campaign with the theme of "Garbage Sorting Originating from Awareness Cultivation, and Green Life Coming from Proactive Personal Involvement", to remind the general public the importance of recycling and enhance the public's awareness and motivation in recycling in daily lives.







#### Case Study: "Food of Love" Free Food Support

In October 2020, Oasis Avenue A GDH Hotel (Hong Kong) organised the "Food of Love" activity jointly with the Social Welfare Department and O Veggie (Sheung Wan) for the purpose of distributing free food to the disadvantaged groups and bring warmth and caring to them.

## Case Study: Visits and Celebration on Dragon Boat Festival

On 21 June 2020, the volunteer team of Zhongshan Energy visited the integrated services centre of social workers in Huangpu Town and organised an activity themed "Converging Love, and Showing Care", to send gifts to 30 under privileged households in the town. This was a great way for us to share with them the warmth and cheer to them.







#### Case Study: Summer Camp

On 22 August 2020, Zhongshan Energy invited children from seven low-income and impoverished families to visit its office. Guided by the staff of the social work services centre of Huangpu, Zhongshan, they participated in a summer camp, which provided them with an interesting and meaningful learning opportunity.

#### **Case Study: Voluntary Blood Donation**

On 20 March 2020, GDH Highway invited its staff to participate in a voluntary blood donation activity. They also intended to pay a tribute to medical professionals fighting against the pandemic through the blood donation activity.





#### Case Study: "A Loving Trip" Voluntary Service Activity

During the Spring Festival travel season in 2020, GDH Highway invited its staff to join "A Loving Trip" voluntary service activity in order to provide convenience and caring services to drivers and conductors.



# AWARDS AND HONOURS

-		120-
RA	 0725	
-75	And the	

Awards	Issuing Organisation	Recipient	Award Information
The honorary title of "Exemplary Group of Guangdong Province"	The commendation conference for model workers, exemplary individuals and groups of Gangdong Province	The Water technology R&D Department of Water Resources Segment	The Water Technology R&D Department of Water Resources Segment was honoured as an "Exemplary Group of Guangdong Province" in recognition of its R&D efforts.
Youth Model Unit Award of Guangdong Province	The Communist Youth League of Guangdong	The Engineering Department of Water Resources Segment, and the Power Generation and Operation Department of Lechang Gorge Water Conservancy Project	The Engineering Department of Water Resources Segment and the Power Generation and Operation Department of Lechang Gorge Water Conservancy Project received the Youth Model Unit Award of Guangdong.

	Awards	Issuing Organisation	Recipient	Award Information
	2020 National Exemplary Enterprise for Safety Culture Development	China Association of Work Safety	Yue Gang Water Supply	Yue Gang Water Supply was recognised as one of the national exemplary enterprises for safety culture development in 2020.
<section-header><section-header><section-header><section-header><section-header><section-header><section-header><section-header><section-header><text></text></section-header></section-header></section-header></section-header></section-header></section-header></section-header></section-header></section-header>	Being ranked among China's Top 60 Hotel Groups	China Tourist Hotel Association	Guangdong (International) Hotel Management Holdings Limited	Being included in the ranking is a recognition of the large scale of operation of the Hotel Management Company.
<image/> <image/> <image/> <section-header></section-header>	China Golden Horse Awards – being named as one of China's Top 10 Hotel Management Companies	The Jury of China Golden Horse Awards	Guangdong (International) Hotel Management Holdings Limited	The award is a recognition of the brand influence and reputation of the Hotel Management Company.
<section-header><section-header><section-header><section-header><section-header></section-header></section-header></section-header></section-header></section-header>	Asia's Influential Brands – "Best mid- and high- end Business Lifestyle Hotel Brand"	Pacific Asia Travel Association and leyooo.com	"Wharney Hotel" brand under Guangdong (International) Hotel Management Holdings Limited	The award is a reflection that the hotel brand is highly recognised by consumers.

## 7. AWARDS AND HONOURS (CONTINUED)



A REMARK

Awards	Issuing Organisation	Recipient	Award Information
2020 Ctrip Hotels – Best Business Hotel Brand	Ctrip Travel Information Technology Shanghai Company Limited	Guangdong (International) Hotel Management Holdings Limited	The award is a reflection that business guests and travelers recognised our hotel service performance and business hospitality capability.
Fliggy Excellent Companies of the Year Award	Zhejiang Future Hotel Network Technology Company Limited	Guangdong (International) Hotel Management Holdings Limited	The award represents is a reflection that the comprehensive marketing and service capabilities of our flagship hotels are recognised by Fliggy's customers.
2020 Excellent National Enterprise with Foreign Investment – Harmonious Labour Relations Promotion	Shenzhen Association of Enterprises with Foreign Investment	Shenzhen Guangdong Hotel Enterprise Ltd.	The award is a recognition of the hotel's sound labour relations in respect of labour union, employment practice, and occupational health management.
2020 Excellent National Enterprise with Foreign Investment – Quality Enhancement	Shenzhen Association of Enterprises with Foreign Investment	Shenzhen Guangdong Hotel Enterprise Ltd.	The award is a recognition of the hotel's products and quality system.

Awards	Issuing Organisation	Recipient	Award Information
2020 Excellent National Enterprise with Foreign Investment – Safety and Environmental Promotion	Shenzhen Association of Enterprises with Foreign Investment	Shenzhen Guangdong Hotel Enterprise Ltd.	The award is a recognition of the hotel's safety and environmental systems.
Being recognised as a Trustworthy Enterprise of Guangdong Province	Guangdong Federation of Enterprises/ Guangdong Association of Entrepreneurs	Shenzhen Guangdong Hotel Enterprise Ltd.	The award is a recognition of the hotel's integrity-based operation.
Smart Energy Award 2019	CLP Power Hong Kong Limited	Oasis Avenue A GDH Hotel (Hong Kong)	The award is in recognition of the hotel's energy management.
Hong Kong Awards for Environmental Excellence	Environmental Campaign Committee	Oasis Avenue A GDH Hotel (Hong Kong)	The award is a recognition of the hotel's environmental management.

## 7. AWARDS AND HONOURS (CONTINUED)



Awards	Issuing Organisation	Recipient	Award Information
Honour of "Exemplary Unit" for the dedicated firefighting teams of enterprises	Fire and Rescue Corps of Guangdong Province	The dedicated firefighting team of Zhongshan GDH Energy Co., Ltd.	The award is a recognition of the firefighting team's dedication and contribution to safeguarding lives of people in the vicinity and their property.
Honorary certificate of level 2 grade A rating for archival work of Guangdong- based enterprises	Archives Bureau of Guangdong Province	Zhongshan GDH Energy Co., Ltd.	The Guangdong's Rating of Archival Work of Enterprises is currently the only rating method to accredit the standardisation of archival work of enterprises in Guangdong Province. Thanks to its emphasis on archival work, Zhongshan Energy achieved remarkable results in archiving and won this honour.
Winning commendation at the Review of Achievements of QC Teams of Guangdong Electric Power Industry 2020	Guangdong Province Electricity Trade Association	Zhongshan GDH Energy Co., Ltd.	The achievements of the QC team reported during the year, namely "reducing the cost of activating a 300MW subcritical co-generation unit", "reducing the number of false trips caused by ETS signals", "reducing the cost of desalted water production" and "increasing the pressure of EH oil supply mains before unit #2 is latched" won commendation.

Awards	Issuing Organisation	Recipient	Award Information
Third Prize for Building Trustworthy Group for Quality 2020	China Association for Water and Electricity Quality Management	Laboratory centre and thermal control maintenance team of Zhongshan GDH Energy Co., Ltd.	The laboratory centre and thermal control maintenance team won the award for their outstanding quality management
Third Prize of Scientific and Technological Progress Award of Sichuan Province	The People's Government of Sichuan Province	Zhongshan GDH Energy Co., Ltd.	The project of "Research on High-Efficiency Reduction Mechanism of Coal-fired NOx and Development and Application of Composite Multi-stage OFA Technology" has achieved excellent results.
Being recognised as one of the Enterprises with Outstanding Economic Contributions to Zhongshan 2020	The CPC Zhongshan Municipal Committee and the People's Government of Zhongshan Municipality	Zhongshan GDH Energy Co., Ltd.	Zhongshan Energy received commendation from the municipal CPC committee and the government of Zhongshan for its outstanding economic contributions in 2020.

APPENDIX: CONTENT INDEX FOR ESG REPORTING GUIDE OF THE STOCK EXCHANGE

Environmental	, Social and Gov	vernance Guide	Disclosure page			
Environmental	Environmental					
A1: Emissions	General Disclosure	<ul> <li>Information on:</li> <li>(a) the policies; and</li> <li>(b) compliance with relevant laws and regulations that have a significant impact on the issuer</li> <li>relating to air and greenhouse gas emissions, discharges into water and land, and generation of hazardous and non-hazardous waste</li> </ul>	P.30-41, 62-72			
	A1.1	The types of emissions and respective emissions data	P.37, 65-72			
	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)	P.37			
	A1.3	Total hazardous waste produced (in tonnes) and, where appropriate, intensity (e.g. per unit of production volume, per facility)	P.69-70			
	A1.4	Total non-hazardous waste produced (in tonnes) and, where appropriate, intensity (e.g. per unit of production volume, per facility)	P.69-70			
	A1.5	Description of emission target(s) set and steps taken to achieve them	P.30-41, 62-72			
	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	P.62-72			

Environmenta	l, Social and Gov	vernance Guide	Disclosure page
A2: Use of	General Disclosure	Policies on the efficient use of resources, including energy, water and other raw materials	P.30-37, 38-41, 62-72
Resources	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)	P.71
	A2.2	Water consumption in total and intensity (e.g. per unit of production volume, per facility)	P.71
	A2.3	Description of energy use efficiency target(s) set and steps taken to achieve them	P.30-37, 38-41, 62-72
	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.	P.38-41, 62-72
	A2.5	Total packaging material used for finished products (in tonnes) and, if applicable, with reference to per unit produced	The Group is not involved in business that consumes any packaging materials.
A3: The	General Disclosure	Policies on minimising the issuer's significant impacts on the environment and natural resources	P.30-37, 52-55
Environment and Natural Resources	A3.1	Description of the significant impacts of activities on the environment and natural resources and the actions taken to manage them.	P.30-37, 52-55
A4: Climate Change	General Disclosure	Policies on identification and mitigation of significant climate-related issues which have impacted, and those which may impact, the issuer	P.20-29
	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	P.20-29

## 8. APPENDIX: CONTENT INDEX FOR ESG REPORTING GUIDE OF THE STOCK EXCHANGE (CONTINUED)

Environmental	l, Social and Gov	vernance Guide	Disclosure page		
Social	Social				
B1: Employment	General Disclosure	<ul> <li>Information on:</li> <li>(a) the policies; and</li> <li>(b) compliance with relevant laws and regulations that have a significant impact on the issuer</li> <li>relating to compensation and dismissal, recruitment and promotion, working hours, rest periods, equal opportunity, diversity, anti-discrimination, and other benefits and welfare.</li> </ul>	P.90-103		
	B1.1	Total workforce by gender, employment type (for example, full- or part-time), age group and geographical region	P.91		
	B1.2	Employee turnover rate by gender, age group and geographical region	P.91		
B2: Health and Safety	General Disclosure	<ul> <li>Information on:</li> <li>(a) the policies; and</li> <li>(b) compliance with relevant laws and regulations that have a significant impact on the issuer</li> <li>relating to providing a safe working environment and protecting employees from occupational hazards</li> </ul>	P.73-89		
	B2.1	Number and rate of work-related fatalities occurred in each of the past three years including the reporting year	P.73		
	B2.2	Lost days due to work injury	P.73		
	B2.3	Description of occupational health and safety measures adopted, and how they are implemented and monitored	P.73-89		

Environmental	l, Social and Gov	vernance Guide	Disclosure page
B3: Development	General Disclosure	Policies on improving employees' knowledge and skills for discharging duties at work. Description of training activities	P.90-103
and Training	B3.1	The percentage of employees trained by gender and employee category (e.g. senior management, middle management)	P.92
	B3.2	The average training hours completed per employee by gender and employee category	P.92
B4: Labour Standards	General Disclosure	<ul> <li>Information on:</li> <li>(a) the policies; and</li> <li>(b) compliance with relevant laws and regulations that have a significant impact on the issuer</li> <li>relating to preventing child and forced labour</li> </ul>	P.90-103
	B4.1	Description of measures to review employment practices to avoid child and forced labour	P.90
	B4.2	Description of steps taken to eliminate such practices when discovered	P.90
B5: Supply Chain	General Disclosure	Policies on managing environmental and social risks of the supply chain	P.108-111
Management	B5.1	Number of suppliers by geographical region	P.111
	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	P.108-111
	B5.3	Description of practices used to identify environmental and social risks along the supply chain, and how they are implemented and monitored	P.108-110
	B5.4	Description of practices used to promote environmentally preferable products and services when selecting suppliers, and how they are implemented and monitored	P.108-110

## 8. APPENDIX: CONTENT INDEX FOR ESG REPORTING GUIDE OF THE STOCK EXCHANGE (CONTINUED)

Environmental, Social and Governance Guide			Disclosure page
B6: Product Responsibility	General Disclosure	<ul> <li>Information on:</li> <li>(a) the policies; and</li> <li>(b) compliance with relevant laws and regulations that have a significant impact on the issuer</li> <li>relating to health and safety, advertising, labelling and privacy matters relating to products and services provided and methods of redress</li> </ul>	P.42-51
	B6.1	Percentage of total products sold or shipped subject to recalls for safety and health reasons	The Group's products and services are not subject to recalls for health and safety reasons.
	B6.2	Number of products and service related complaints received and how they are dealt with	P.42-51, 60-61
	B6.3	Description of practices relating to observing and protecting intellectual property rights	P.42-51
	B6.4	Description of quality assurance process and recall procedures	P.42-51
	B6.5	Description of consumer data protection and privacy policies, and how they are implemented and monitored	P.42-51, 60-61
B7: Anti- corruption	General Disclosure	<ul> <li>Information on:</li> <li>(a) the policies; and</li> <li>(b) compliance with relevant laws and regulations that have a significant impact on the issuer</li> <li>relating to bribery, extortion, fraud and money laundering</li> </ul>	P.56-61
	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	P.56-61
	B7.2	Description of preventive measures and whistle-blowing procedures, and how they are implemented and monitored	P.56-61
	B7.3	Description of anti-corruption training provided to directors and staff	P.56-61
B8: Community Investment	General Disclosure	Policies on community engagement to understand the needs of the communities where the issuer operates and to ensure its activities take into consideration the communities' interests	P.111-115
	B8.1	Focus areas of contribution (e.g. education, environmental concerns, labour needs, health, culture, sport)	P.111-115
	B8.2	Resources contributed (e.g. money or time) to the focus	P.111-115