Environmental, Social & Governance Report 2020

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Tianjin Capital Environmental Protection Group Company Limited 天津創業環保集團股份有限公司

2020 Environmental, Social & Governance Report

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1. ABOUT US

1.1. Overview of the Company

Our vision: "returning clean water to the world, delivering fresh air to the earth"

Our mission: "purify the ecological environment, enhance living quality"

Our core values: provide professional and effective environmental services, establish a harmonious environment for staff development, and maximize value for shareholders.

Tianjin Capital Environmental Protection Group Company Limited (the "**Company**", together with its subsidiaries, the "**Group**") was established in January 2001, where the Tianjin Municipal Government restructured the then Tianjin Bohai Chemical Industry (Group) Company Limited and renamed it to its current name. The Company is the first water utilities corporation in the People's Republic of China (the "**PRC**") carrying out sewage treatment business in large scale and controlled by the state that is listed in both Shanghai and Hong Kong (A-share code: 600874; H-share code: 1065). It undertakes water utilities investment and operation that integrates investment, operation, management, research and construction to form a comprehensive group with a full business chain. With the competitive edge and multiple advantages over water industries in the PRC and overseas, the Group is a pioneer and leader in the domestic environmental industry. Supported by its rich industry experience, professional and talented staff, satisfactory capital market operation and effective communication skills with governments, the Group keeps putting effort into reaching its strategic objectives – becoming a domestic pioneer and international reputed integrated environmental solutions and services provider.

The main operating business of the Group in 2020 includes sewage treatment, water recycling, tap water and industrial water supply, investment, construction and operation of providing heating and cooling services with renewable energy, sludge and solid waste treatment etc. This has initially formed an industrial chain layout with water business as the mainstay and simultaneous development of multiple businesses of the Group. As of 31 December 2020, the Company possessed total assets of RMB18.803 billion with net assets of RMB6.59 billion. It operates 8 functional management centers, 3 party departments, 52 controlling subsidiaries, and has 2,034 employees.

In future, the Group will utilize its core competitiveness in its technology system and R&D capabilities. By providing our clients with sewage treatment and other related environmental solutions, we are devoted to supplying society with sustainable sources of clean water and services in the whole chain led by technology, to establish a new image of domestic leading and internationally renowned service providers of integrated environmental solutions. We are versed in adopting flexible and innovative ways with variety to meet the needs of society, enterprises and clients by building a recycling system for water, creating a win-win situation.

1.2. Corporate Governance and Organizational Structure

The Group strictly complies to the PRC Company Law and other relevant laws, regulations and articles of association to establish a proper corporate governance structure. Shareholder meetings, board meetings, and the supervisory committee of the Group operate independently and effectively in accordance with the Group's articles of association. The five professional committees established under the Board of Directors are respectively responsible for the Group's financial and internal audit matters, the developmental strategies, planning and assessment for the Group, the nomination of directors and senior executives and compliance management, etc. On the systems regarding personnel management and financial management, the Group aligns to the Labour Law of the PRC and financial and tax regulations. A strict approval process by different grades is adopted in important matters such as personnel appointments and removals, performance appraisals, financial approvals and investment audits, thus establishing an effective internal risk control mechanism. At present, the organizational structure of the Group is as follows:



2. ESG REPORT SCOPE AND BOUNDARIES

This Environmental, Social and Governance (ESG) report has been prepared in accordance with the ESG Reporting Guide, issued in 2015 as set out in Appendix 27 of the Main Board Listing Rules of The Stock Exchange of Hong Kong Limited (HKEx), and with reference to the GRI Sustainability Reporting Standards (GRI Standards) of the Global Reporting Initiative (GRI). Its purpose is to disclose the Group's policies, performance and key performance indicators (KPIs) in the environmental, social and governance aspects from 1 January 2020 to 31 December 2020. This report covers our core businesses in Mainland China. A detailed HKEx ESG Reporting Guide and GRI Standards content index is provided at the end of the report.

3. STAKEHOLDER ENGAGEMENT

As a publicly traded company, we place emphasis on satisfying the needs of the stakeholders and feedback about relevant information, to achieve a win-win situation for different parties during our corporate development progress.

The stakeholders of the Group mainly consist of 6 parties, namely governments, investors, industry peers, general public, value chain partners and staff.



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The governments' guidance, support and supervision are the criteria and starting point for all business activities of the Group. At the same time, we have successfully secured some local governments to become our clients and service targets. The Group strictly observes various laws and regulations, accepts the governments' supervision and guidance, and renders sewage treatment and other integrated environmental services to the governments.

The general public is the ultimate beneficiary of our services, who also oversees our work and shares the fruits thereof. With environmental protection as our principal business, our growth and development is directly linked to social responsibility maximization. Moreover, as the Group is public-listed, the general public could also share the wealth brought by our business growth through investment in our shares.

Investors are the driving force for our development. In line with the Group's responsible attitude towards shareholders, we disclose information in an accurate, correct, complete, timely and fair manner. Communication is made smooth through channels such as roadshows, investor forums, our investor communication platform and other activities. By the same token, we work hard to strive for bringing more returns for our shareholders.

As for industry peers, we compete in a wholesome and orderly manner, with a rational attitude. We partake in industry forums, alliance meetings and other forms of communication to boost the competitiveness of the industry and promote the growth of the environmental industry across the PRC.

Our value chain partners include manufacturers involved in the provision of products and services in the whole supply chain (both upstream and downstream processes), banks and intermediaries in the capital markets, etc. The Group cultivates a harmonious and collaborative relationship with them sincerely for the benefits of all.

Our employees are the creators of the Group's worth and at the same time, they are the beneficiaries of our development too. We have established a standardized staff congress system and offered comprehensive protection, training, and career planning, etc., to share with our staff the fruits from our corporate development and reinforce harmonious labour relations. Upholding the aforementioned principles, we communicate with our stakeholders through a variety of channels in order to truly understand their needs and demands. Aspects of greatest concern and interest to our stakeholders are listed as follows:

	Means of Engagement	
Stakeholders	and Communication	Concerned Aspects
Governments	Laws and Regulations	Corporate Governance
	Local Projects	Organisational Structure
	Correspondence	Compliance
		Emissions
		Energy
		Environmental Protection
		Occupational Health and Safety
		Labour Standards
		Supply Chain Management
		Procurement Behaviours
		Anti-Corruption
		Product Quality
		Customer Data Privacy
General Public	Annual Reports and Announcements	Corporate Governance
	User Seminars	Organisational Structure
	24-Hour Service Hotline	Emissions
	Factory Open Day	Environmental Protection
	Water Safety Visits and Investigation	Labour Standards
	Voluntary and Charitable Activities	Customer Data Privacy
		Product Quality
		Anti-Corruption
		Community Investment
		Charity and Relief
Investors	Annual Reports and Announcements	Corporate Governance
	Investors Road Shows	Organisational Structure
	Investors Communication Meetings	Economic Performance
	Investors Communication Platform	Product Quality
	Shareholders' Meetings	Anti-Corruption
		Compliance
		Customer Data Privacy
		Community Investment
		Charity and Relief

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Stakeholders	Means of Engagement and Communication	Concerned Aspects
Industry Peers	Industry Forums	Corporate Governance
	Alliance Meetings	Organisational Structure
		Compliance
		Customer Data Privacy
		Emissions
		Energy
		Environmental Protection
		Supply Chain Management
		Procurement Behaviours
		Product Quality
		Anti-Corruption
Value Chain Partners	Meetings	Supply Chain Management
value Chain Fathers	Emails	Procurement Behaviours
	Phone Calls	Corporate Governance
	Those Cans	Product Quality
		Customer Data Privacy
		Anti-Corruption
		Anti-Contuption
Staff	Staff Congress	Corporate Governance
	Meetings	Organisational Structure
	Interviews	Environmental Protection
		Economics Performance
		Employment
		Remuneration and Benefits
		Development and Trainings
		Occupational Health and Safety
		Labour Standards

4. MATERIALITY ASSESSMENT

According to the HKEx ESG and GRI Standards, the Group is obliged to disclose ESG aspects that are of significant impacts to investors and other stakeholders. In our materiality assessment, we have observed the HKEx ESG and GRI Standards best practices, following the steps of identification, prioritization and validation to define our ESG material aspects. We have maintained close communication and information exchange with our stakeholders. We have identified the following 19 material aspects and determined the scope of impact of the material issues after communication with our stakeholders.

				Scope of	Impact		
				_	Industry	Value Chain	
Торіс	Material Aspects	Governments	General Public	Investors	Peers	Partners	Staff
Stable Operational Management	Corporate Governance	*	*	*	*	*	*
	Organisational Structure	*	*	*	*	•	*
	Economic Performance	•	•	*	•	•	*
	Compliance	*	٠	*	*	٠	٠
Sustainable Environmental Optimisation	Emissions	*	*	*	•	•	•
•	Energy	*	•	*	•	•	•
	Environmental Protection	*	*	*	٠	٠	*
Collaborative Social Development	Employment	٠	•	•	•	•	*
	Remuneration and Benefits	•	•	•	•	•	*
	Development and Training	•	•	•	•	•	*
	Occupational Health and Safety	*	•	•	•	•	*
	Labour Standards	*	*	•	•	•	*
	Supply Chain Management	*	•	•	*	*	•
	Procurement Behaviours	*	•	•	*	*	•
	Anti-Corruption	*	*	*	*	*	•
	Product Quality	*	•	*	*	*	•
	Customer Data Privacy	*	•	*	*	*	•
	Community Investment	•	*	*	•	•	•
	Charity and Relief	•	*	*	•	•	•

★ Greater impact of material aspects on stakeholders

Less impact of material aspects on stakeholders

We have prioritized the material aspects from the two perspectives of the "positive or negative impacts on the economy, environment and/or community" and the "influence on stakeholders' decision-making". The prioritization of each material topic is as follows:



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Validation

The Group's management and relevant professionals formed an ESG taskforce to assess and approve the prioritization results by consensus. Having validated the final selection of material topics, the management determined information relevant to the material topics to be included in this report, and prepared the corresponding information collection processes.

5. ENVIRONMENTAL: DRIVING THE ENVIRONMENTAL PROTECTION INDUSTRY TO FOSTER ECOLOGICAL CIVILISATION

As a leading company in the environmental industry, we have always been taking up-to-standard discharge, provision of premium water quality, and the enhancement of environmental-friendliness as our obligations. We also fully support the state's emission reduction scheme, enabling the Group to become a "Comprehensive Environmental Service Provider" that consolidates, expands, and deepens its environmental business, protects the natural environment, controls pollution and reduces carbon, and facilitates the state's great vision of developing "National Green Ecological Civilization". We use sustainable development as a guiding principle in our decision making process, which shows that we do not merely pursue economic benefits, but also focus on the harmonious existence between mankind and nature. Internally, the Group has launched ecology education efficiently. By engraving the awareness on maintaining ecological security in our employees' mind, the Group is progressively upgrading environmental protection to conscious actions. By saving water and electricity in our workflow and work practice, the Group actively participates in social benefit activities. Starting with small things and its neighborhood, we do our best to benefit people and the society.

In this year, the Group leverages its well-grounded operational skills to operate various projects precisely, and work continuously to deepen and lean our control management. By fully guaranteeing the stable and up-to-standard operation of energy stations and hazardous waste disposal projects, as well as the handling of existing sewage, reclaimed water, tap water, sludge, the Group's "TJCEP sewage treatment plant big data operation scheduling management platform" has obtained the Copyright Certificate for Computer Software issued by the National Copyright Administration. By the digitization of our core business operations, the Group realizes cost reduction and efficiency enhancement. This helps us to set the foundation of extending the use of this platform to other companies. The adoption of the smart water system in Jiayuan Company and Water Recycling Company has taken a solid step on the road of transformation from traditional water operations to smart operations of multiple businesses such as recycled water and new energy. Moreover, the Group actively undertakes tasks of various emergency rescue operations and people's livelihood protection, as well as demonstrates our value in numerous challenges.

In 2020, the Group achieved great success, accomplished continuous breakthroughs, demonstrated extraordinary strength and won numerous awards. As of 2020, the Group has been awarded the title of "Top Ten Influential Enterprises of Chinese Water Industry" by China Water Network for 15 consecutive years. It also won the "Construct New Development Pattern, Deliver Marketing Strength-2020 Listed Company High Quality Development Forum Gold Quality Social Responsibility Award. In December 2020, the Group's subsidiary Water Recycling Company's operating team in the Jingu reclaimed water plant was awarded "First prize in the 11th Tianjin Team Safety Construction and Management Presentation Activity", and the "2020 Tianjin Workers Pioneer Organization" by the Tianjin Municipal Trade Union. In June 2020, the water plant was awarded as the "National Youth Work Safety Demonstration Corps" by the Youth League and the Ministry of Emergency Management. The laboratory in the Xianyang Road factory was named "2017-2019 Tianjin Outstanding Staff House (recreational facilities for staff)" by the Tianjin Municipal Trade Union. In July 2020, Hanshou Company in the Central China Region, was awarded the title "National Rural Water Supply Demonstration Factory" by the Ministry of Water Resources. In September 2020, the Group's company in Hanshan received a commendation by the Lin Tou Town People's Government for successfully saving state properties with a total value of over RMB500,000 by flood control. In January 2020, Xi'an Company was awarded the honorary title of "Workers Pioneer Organization" by the Xi'an Construction and Transportation Union. It also attained the honorary title of "Leading Group in the Construction Industry regarding the Control of Covid-19" in May 2020, the honorary title of "Xi'an Ecology Education Base" in June 2020. The Karamay second sewage treatment plant received the "Karamay's High Quality Construction Work Award" and "The Xinjiang Uygur Autonomous Region High Quality Construction Work Award" in 2020. The Da Lian Company Chun Liu River sewage treatment plant phrase one upgrade and expansion project was awarded the "2019 Liaoning Municipal Gold Cup Demonstration Project (provincial high-quality project)" by the Liaoning Municipal Trade Association. The party branch of Qujing Company has won the honorary title of "Leading Party Branch" from Qujing Urban Water Supply and Drainage Corporation General Party Branch Committee. It also won the "Gold Award for New Applications of New Technologies and Products on IoT" in the World IoT Expo 2020 Innovative Achievement Release and China Enterprise Strategic Investment Summit.

The Group's performance on emissions, use of resources, and the environment and natural resources alongside the corresponding key performance indicators (KPIs) are now described in the following sections.

5.1. Emissions

China has shown its determination to build an ecological civilization over recent years. In addition to its pledge in the Paris Agreement to reduce the carbon intensity of GDP by 60% to 65% by 2030 using 2005 as the base, it imposed the "13th Five-Year Plan for Energy Conservation and Emission Reduction Programme" in 2017 to control energy consumption and emissions, by capping the total consumption of standard coal at 5 billion tons and setting ambitious goals for cutting various types of emissions. The Group obtained the ISO14000 international standard and formulated an overall environmental management mechanism in accordance with the standard to ensure low-carbon business management and operation. The Operation Management Center of the Group is responsible for formulating strategies regarding discharges into water and soil, and the production of hazardous and non-hazardous waste as well as the monitoring of sewage discharge, sludge disposal, and emissions of gaseous pollutants and noise.

During the reporting period, the sewage treatment projects operated by the subsidiaries of the Company strictly complied with the relevant emission standards with all the effluent water quality, odor, noise, and solid emission meeting the requirements. The projects' operation was also in normal condition. Sewage treatment facilities that are currently under construction operate properly while following the relevant construction procedures and quality standards.

In 2020, the Group remained devoted to sustainable development and put consistent efforts in our environmental mission. Our domestic leading and internationally renowned integrated environmental solutions constantly improved water quality by sewage treatment, while we kept enhancing our business with technological innovation. During the reporting period, apart from reducing discharges into water, air and soil, we helped facilitate the circulation of water resources, improve air quality and recycle sludge and solid waste.

Facilitating the Circulation of Water Resources and Conserving Ecological Sustainability

Wastewater Treatment: Safely Returning Treated Sewage to Nature

Urban development inevitably entails impacts and pollution on the natural environment. Domestic and municipal pollutants including sewage and air emissions harm the ecosystem and threaten the harmonious existence between human and nature. We shoulder the mission of reducing pollution and emissions for cities, sustaining the balance between urban development and natural conservation by sewage treatment and wastewater recycling. Our sewage treatment plants collect and treat domestic and municipal sewage by removing main pollutants therein to the extent that the treated effluent meets the discharge standards of the central and local governments, and then discharge the effluents to rivers via sewage outfalls as designated after assessment.

The main operating business of the Group in 2020 includes sewage treatment, water recycling, tap water and related technical and management services, sludge and solid waste treatment, etc. This has initially formed an industrial chain layout with water business as the mainstay and simultaneous development of multiple businesses of the Group.

Ensuring safe, stable and up-to-standard operation is one of the top priorities and responsibilities for the Group. The Group has a highly responsible attitude towards the environment and throughout the Group's different departments and subsidiaries located in different regions on the basis of production meeting standards, the Group has further invested in science and technology, strengthened operational management, changed the way of management, adopted an advanced management concept towards existing working methods and operational management to see what changes could be made by upgrading and reforming the current system, as well as continuously improved water quality by upgrading and improving, with the hope of achieving energy saving and emission reduction, and facilitate the improvement of environmental quality.

As at the end of the reporting period, the Group had 42 sewage treatment plants with a total capacity of 4.8311 million m³/day, which were located across Beijing – Tianjin – Hebei, Central China, Southwest, Eastern China and Northwest regions and were key pollutant discharging entities for local environmental protection authorities. As of the end of the reporting period, the overall sewage treatment capacity (excluding entrusted operations) of the Group was 1.4617646 billion m³, which substantially alleviated pollution in rivers and improved the urban water environment and its sustainability. It also adhered the environment protection centric approach, which focuses on controlling key environmental factors, energy saving and emission reduction. Its aim is to achieve cost and consumption reduction, environmental protection and pollution prevention, so as to ultimately achieve the principle of increasing its operation efficiency.

The Group guarantees the treated effluents could satisfy all legal requirements. The Group has conducted research projects targeted at different sewage types to study in depth the treatment technologies for different water sources with different water pollutants and to continuously improve our sewage treatment technologies. The Group has created a database of purifying technologies used for every type of sewage, so as to strengthen the quality of water output for all sewage treatment plants of the Group and support the nation's effort in emission mitigation. During the reporting period, all of our sewage treatment plants, water recycling plants and tap water supply plants have stringently adhered to the following standards:

- Water Quality-Determination of Sulfides (GB/T17133-1997), (HJ/T60-2000)
- Water Quality-Determination of the Chemical Oxygen Demand (HJ/T 399-2007)
- Water Quality-Determination of Total Nitrogen (HJ636-2012)
- Water Quality-Determination of Suspended Solids (GB11901-89)
- Water Quality-Determination of Dissolved Oxygen (GB7489-87)

- Water Quality-Determination of Total Phosphorus (GB11893-89)
- Water Quality-Testing for Fecal Coliform from "Water and Wastewater Quality Determination Methods 4th edition" published by China Environmental Science Press (Interim Measures)

During the reporting period, all treated effluent met First Grade A or First Grade B under the "Discharge Standard of Pollutants for Municipal Wastewater Treatment Plant" (GB18918-2002) and was fully within the safe emission level. "Discharge Standard of Pollutants for Municipal Wastewater Treatment Plant" (DB12_599-2015) (Tianjin) Landmark A is adopted.

Water Recycling: Converting Wastewater into Reusable Water

In addition to sewage treatment, the Group's principal business also comprises water recycling, which involves performing further advanced treatment on treated effluents for reclaimed water supply. The reclaimed water provides an alternative source of water in place of tap water for miscellaneous household use, industrial cooling and greening, not only proving beneficial in reducing pollution loads in cities, but also catering to the public's water demands, which enhances the sustainability of urban water resources and facilitates benign water ecosystems.

The Group implemented projects in a high-quality manner and ensured its construction quality comprehensively by its sound construction management. We have put numerous efforts to overcome the adverse impact of the epidemic on project construction, for instance, coordinated different parties to ensure prevention and control measures were taken before project implementations, arranged the construction schedule in a scientific way, and paid attention to every details regarding project progress, fully fulfilled all the reasonable requirements on project construction stated by the government. Thus, the successful implementation of the trial operation of water supply at Tianjin Dongjiao Sewage Water Treatment Plant and Recycled Water Plant Relocation Project has earned critical acclaim by all the competent departments and has drawn a perfect end to the tendering project of five sewage plants in the Tianjin Central District.

The Group's water recycling plants are mainly in Tianjin, Anhui Fuyang, Inner Mongolia Bayannur. During the reporting period, the total capacity of the reclaimed water business was 420,000 m³/day with sales volume of running water at 55.1956 million m³, sales volume of recycled water at 77.5321 million m³, and the volume of industrial water supply at 3.7625 million m³. The water quality achieved the required standards. Our water recycling business turned waste into treasure, and has taken one step further by not only reducing sewage discharge but also to converting it into reusable resources, and promoting sustainable water cycles.

Upgrading Water Utilities Business with Technological Innovation

Being highly responsible to the environment, the Group has made substantial investments in innovative technologies and strengthened operation management while ensuring all sewage treatment, water recycling and tap water plants are operating up-to-standard. The continuous improvement and upgrading of treatment techniques have refined the quality of treated effluents, saved more energy and reduced emissions, thereby improving the quality of the environment.

In 2020, the Group invested RMB8.01 million in new technologies and launched 59 science and technology projects with the objective to achieve "stable operations of sewage treatment plants", "sludge treatment and disposal", "new products and treatment technologies for sewage treatments" and "energy conservation and emission reduction", the Group has conducted extensive scientific and technological research on the stable operation of sewage treatment plants, industrial wastewater treatment, integrated treatment techniques for black and odorous water, "sponge city" construction, etc. This expedites research on on-line detection methods of wastewater toxicity in cities, high-efficiency biochemical nitrogen removal process based on multi-stage AO, as well as intelligent control transformation of biological systems in Jingu Sewage Treatment Plant, and research on new alternative carbon sources and applications etc. These projects accelerated the achievement transformation process and contributed to our technical reserves for future development.

The Group has also undertaken the nation's "Twelfth Five-Year" Water Special Project of the Ministry of Construction for the task "Integrated Research and Comprehensive Demonstration of Urban Sewage Energy Resources Development and Nitrogen and Phosphorus Depth Control Technology" (2015ZX07306001), and the municipal project "Research and demonstration application of high-standard treatment and recycling technology of urban sewage" (16YDLJSF00320), which both projects had been qualified upon acceptance. The Group also participated in the "National Key Research and Development Program of China for International Science & Innovation Cooperation Major Project between Governments" declared by the Ministry of Science and Technology titled "Safety reclaimed water supply system and key technologies" (2016YFE0118800-05), the city level subject "Sewage Wastewater Treatment Bio-enhanced Bacteria Application Technology Service Platform" (16PTGCCX00110) has completed financial audit, and is currently awaiting the completion of acceptance by higher authorities. In the meantime, the "13th Five-Year" water specialized project on "Biosystem Effective Improvement and Demonstration on Construction and Operation" (2017ZX07106005-02), the newly applied construction department project, "Research and Demonstration of Co-processing and Resource Utilization Technology of Urban Kitchen Waste and Municipal Sludge" (2020-Z-001) and the city level "Research on typical PPCP emerging pollutant treatment technology for urban sewage treatment plants" (19YFZCSF00840) are currently being implemented as planned.

The Group has submitted the revised draft of "Technical specification for operation, maintenance and safety of municipal wastewater treatment plants" (CJJ60) to the competent department of business, and will commence relevant work in accordance to the competent department's requirements. The implementation of the revision of National Standard "The reuse of urban recycling water -- Water quality standard for industrial uses" (GBT19923) is also being carried out as planned. Moreover, the Group is also working on 4 group standards according to the plan, namely "Technical specification for operation, maintenance and safety of reclaimed water delivery system", "Technical order for comprehensive treatment of landscape water environment", "Regulations for the preparation of comprehensive plans for landscape rivers", "Technical specifications for survey and evaluation of landscape rivers".

Due to the Group's business development needs, it launched the "SaaS Centralized Management and Control Platform for Sewage Treatment Industry" by integrating advanced concepts such as digital management mode, cloud computing, big data and mobile Internet technology, based on years of operation and management experience. The aim of the platform is to help corporates with urgent needs to solve its problems on corporate safety management and operational business scheduling management. The platform mainly consists of two components, which are "Production Safety Management System" and "Sewage Treatment Plant Big Data Operation Scheduling Management Platform". It effectively expedites the overall digital transformation and development of the Group. The project was selected as one of the Supplementary Projects in the 2020 Tianjin Intelligent Manufacturing Special Fund Award, and received a subsidy of RMB500,000 from the Tianjin Municipal Government.

In 2020, the Group obtained 7 software copyrights by independent research and development, and obtained 13 new patents, including 1 invention patent obtained through the change of ownership, and 12 patents obtained through independent research and development, among which 3 of them are invention patents, and 9 of them are utility model patents.

As of now, the Group obtained a total of 103 granted patents, including 29 invention patents, 69 utility model patents and 5 patents of utility model and design. The Group has accomplished 6 Employees Technical Innovation Project Recognized Work in 2020, creating a total economic benefit of RMB9.196 million.

Strict Discharge Monitoring Ensuring Compliance with Effluent Standards

While the Group is devoted to constantly improving the quality of our treated effluent, the Group strive to minimize sewage discharge that overloads the operation. A wastewater monitoring mechanism pursuant to "Management Procedures of Non-compliance, Correction and Prevention" (CEP.QEHS.P14) and "Control and Inspection Procedures for Safety (Environment) (CEP.QEHS.P08) was established and being implemented by different departments with an aim to reduce discharge. During the reporting period, the wastewater from operation, household and experiment could always meet the set discharge standard after purification.

Sewage treatment is the main business of the Group and the working process is as follows. First, we carry out biochemical treatment on domestic and municipal sewage collected to remove main pollutants, if the treated water quality reaches the national or local emission standards, we will then discharge it into the approved surface drainage channel. Part of the tail water is further processed into the reclaimed water supply phase. According to the above-mentioned national or local government's quality standard on water produced in sewage plants after treatment, certain types and quantities of pollutants are allowed to be discharged through sewage plants. They are mainly chemical oxygen demand (COD), biochemical oxygen demand (BOD), suspended solids (SS), total nitrogen, ammonia nitrogen and total phosphorus, etc. As most sewage treatment projects have a design capacity to handle more than 20,000 tons of pollutants per day, sewage plants are regarded as major pollutant-discharging entities by the local environmental protection department.

During the reporting period, the overall sewage treatment capacity (excluding entrusted operations) of the Group was 1.4617646 billion m³. The quality of all treated effluents has achieved the required discharge standards. As of the end of the reporting period, the group owns 42 sewage handling projects, each project has 1 or 2 water discharge channels identified by competent departments of business and professions. In accordance to the agreement, the majority of our sewage plants complies with Grade A of the "Discharge Standard of Pollutants for Municipal Wastewater Treatment Plant" (DB12/599-2015) and First grade A of the "Discharge Standard of Pollutants for Municipal Wastewater Treatment Plant" (GB18918-2002). During the reporting period, the total volume and emission concentration of pollutants produced by the group's sewage treatment business meets the above mentioned standards, and maintains good water quality.

Common pollutants basic control items include chemical oxygen demand (COD), biochemical oxygen demand (BOD), suspended solids (SS), total nitrogen, ammonia nitrogen and total phosphorus etc. Please refer to the chart below for the highest permitted emission concentration for basic control items.

Serial Number	Basic Control Items		National Standard – first grade class A	Tianjin local standard – class A
1	Chemical Oxygen Demand (COD))	50	30
2	Biochemical Oxygen Demand (BC	DD)	10	6
3	Suspended Solids (SS)		10	5
4	Animal and Vegetable Oils		1	1
5	Petroleum		1	0.5
6	Anionic Surfactant		0.5	0.3
7	Total Nitrogen (calculate by N)		15	10
8	Ammonia Nitrogen (calculate by N	(V	5 (8)	1.5 (3)
9	Total Phosphorus (calculate by P)	Built before 31 December 2005 Built after 1 January 2006	1 0.5	0.3 0.3
10	Chroma (dilution multiple)		30	15
11	РН			6-9
12	Fecal Coliforms (colonies/L)		1000	1000

During the reporting period, the key pollutant emission concentrations of basic control items in the Group's sewage treatment business did not exceed the above-mentioned standards. The approximate cumulative emission produced by the Group are as follows: 22,600 tons of chemical oxygen demand (COD), 9,200 tons of biochemical oxygen demand (BOD), 5,500 tons of suspended solids (SS), 11,700 tons of total nitrogen, 2,200 tons of ammonia nitrogen, and 300 tons of total phosphorus. The approximate cumulative environmental pollutants reduced are as follows: 409,000 tons of chemical oxygen demand (COD), 209,000 tons of biochemical oxygen demand (BOD), 288,000 tons of suspended solids (SS), 76,500 tons of total nitrogen, 48,000 tons of ammonia nitrogen, and 9,000 tons of total phosphorus. Such reduction makes huge contributions to the water environmental governance, practices General Secretary Xi Jinping's "Lucid waters and lush mountains are invaluable assets" thought of ecological civilization construction, and have supported the nation's work in energy saving and emission reductions, and brought ecological benefits to Tianjin and the other cities where the Group's projects are located.

Low-Carbon Operations Improving Air Quality

Fresh air is another vital component of a quality natural environment beside clean water resources, which is why the Group accord high priority to the control of gaseous emissions generated from our operations and traditional coal-fired boilers by limiting the emissions and concentrations of the air pollutants. The Group formulated an air pollution control plan to stringently monitor gaseous emissions such as methane, carbon monoxide and hydrogen sulphide emitted during sewage treatment to minimize their concentrations, with a regular inspection mechanism executed by the Technical Management Department once a week. During the reporting period, ammonia, hydrogen sulphide and odour emissions attained the required standards to keep the air fresh. In 2020, our water plants and energy stations (excluding entrusted operations) produced a total of 5.911 tons of Nitrogen Oxides (NO_x) and 2.414 tons of Sulphur Oxides (SO_x). Each water plant and energy station produced 0.090 tons of NO_x and 0.037 tons of SO_x on average.

In 2020, the emission of NO_x and SO_x from fossil fuel consumption including natural gas was 4.467 tons and 2.410 tons respectively.







Meanwhile, the air pollutants produced from vehicles in 2020 were 1.445 tons of NO_x , 0.004 tons of SO_x and 0.056 tons of particulate matter (PM).

Excess greenhouse gas (GHG) emissions cause global warming, which is why the Group is committed to reducing the use of fossil fuels in the operations of our water plants and why we have been engaged in providing heating and cooling services with renewable energy for years to minimize GHG emissions. Moreover, we limited our business travel to lower our carbon footprint. In 2020, we produced 443,906 tons¹ of total CO₂ equivalent GHG emissions, including direct GHG emissions (4,215 tons), GHG emissions produced by purchased electricity (439,522 tons), GHG emissions produced by paper waste disposed at landfills (81 tons) and emissions produced by employees' business air travel (87 tons) with an intensity of 6,726 tons of CO₂ equivalent per facility (excluding entrusted operations).

Recycling Sludge and Solid Waste: Turning Waste to Treasure

Reduction, Hazard-Free Treatment and Re-utilization of Sludge

Sludge is the main solid waste generated during sewage treatment, so the Group takes a proactive approach to set a number of methods in handling sludge. In particular, effort was put in scientific research to improve sludge treatment technology so as to minimize the negative impact of sludge disposal to the environment. Research achievement includes the size reduction of sludge, decline in sludge production during sewage treatment, stabilization and detoxication of sludge with the aim to bring sludge back to the natural environment safely, and even to recycle them. These research results have provided the Group with usable sludge treatment technologies in reality.

Based on best data available at the time of preparation of the report.

During the reporting period, the sewage treatment plants produced 432,000 tons of cumulative harmless disposal of sludge, and all complied with the requirements in the "Discharge Standard of Pollutants for Municipal Wastewater Treatment Plant" (GB18918-2002) as always. The dehydrated sludge was transported to sludge treatment units to undergo further treatment using the technique of "high-efficiency digestion, frame filter dehydration and drying" for ensuring compliance with the standards laid down in the "Disposal of Sludge from Municipal Wastewater Treatment Plant – Quality of Sludge Used in Land Improvement" (GB/T 24600-2009) and the "Disposal of Sludge from Municipal Wastewater Treatment Plant – The Quality of Sludge Used in Gardens or Parks" (GB/T 23486-2009). The sludge underwent detoxication treatment, so that no secondary pollution would be caused when the sludge returned to the natural environment.

Recycling Solid Waste

The Group classified hazardous and non-hazardous solid waste produced during operations and took proactive measures to recycle the waste. The administration center of the sewage treatment plants divided solid waste into recyclables and non-recyclables (including hazardous wastes). The waste was further classified and passed to different departments for handling and review under supervision. Recyclable items were reused to the greatest extent where possible, and hazardous waste was properly handled, and its volume was 30,500 tons, so as to minimize pollution and impacts on the environment. During the reporting period, the total hazardous chemical waste produced in our operations was 4,608 tons with an intensity of 69.8 tons of hazardous chemical waste per facility (excluding entrusted operations) in average. The dewatered sludge produced was 1,012,309 tons with an intensity of 15,338 tons of dewatered sludge produced per facility (excluding entrusted operations) in average. There was no other non-hazardous chemical waste produced.



Hazardous and non-hazardous solid waste produced (tons)

The following are the types of emissions produced by our sewage treatment and water supply businesses with relevant emissions data.

Types of Emission	Emissions	Emissions Data	Relevant Laws	Remarks
Gaseous Pollutants	Ammonia	Below the emission limit	"Environmental Impact Assessment Law of the PRC"	Compliance with the emission standards
	Hydrogen Sulphide	Below the emission limit		Compliance with the emission standards
	Odour	Below the emission limit	"Environmental Protection Law of People's Republic of China"	Compliance with the emission standards
Treated Effluents	COD	Reduced by 409,000 tons	"Prevention and Control of Atmospheric Pollution Law"	Compliance with "Discharge Standard of Pollutants
	BOD	Reduced by 209,000 tons	(GB18918-2002) First Grade A and First Grade B	for Municipal Wastewater Treatment Plant"
	Suspended Solids	Reduced by 288,000 tons	"Emission Standard for Odor Pollutants" (GB14554-93)	
	Total Nitrogen	Reduced by 76,500 tons		
	Ammoniacal Nitrogen	Reduced by 48,000 tons	"Prevention and Control of Water Pollution Law"	
	Total Phosphorus	Reduced by 9,000 tons		
Sludge	Silts, Rubbish and Quantify of Activated Sludge after Dehydration	1,012,309 tons	 "Law on the Prevention and Control of Environmental Pollution by Solid Wastes of the People's Republic of China" "Discharge Standard of Pollutants for Municipal Wastewater Treatment Plant" (GB18918-2002) "Disposal of Sludge from Municipal Wastewater Treatment Plant – Quality of Sludge Used in Land Improvement" (GB/T 24600-2009) "Disposal of Sludge from Municipal Wastewater Treatment Plant – The Quality of Sludge Used in Gardens or Parks" (GB/T 23486-2009). 	The sludge is transported to sludge treatment units to undergo further treatment using the technique of "high-efficiency digestion, frame filter dehydration and drying" for ensuring compliance with the standards

5.2. Use of Resources

Promoting Green Culture, Injecting Sustainability into Corporate DNA

We deeply believe green corporate culture is vital in supporting the environmental protection industry, so we are committed to building a low-carbon and energy-saving model into our corporate DNA. Environmental protection and resources conservation have become common practices from the management level to the workplace. Resources are highly valued throughout work flows and work practices to further our mission of "to use resources only when necessary and not to waste any if it could be saved".

Our green corporate DNA was built over time thanks to our regulation-based energy use efficiency initiatives and the environmental education on our staff, which allowed us to use resources properly and save our operating costs, as well as to ease the demand for natural resources.

To achieve a better use of resources such as energy and water, the Group has integrated the resource control and protection plan in accordance with the Energy Conservation Law of the PRC and the 5R principle (i.e. replace, reduce, recycle, recover and reuse) with the aim of saving energy, reducing use of resources, recycling water and reducing waste.

The Group knows that a good energy and resources conservation mechanism is only the first step for environmental protection, and the more important aspect remains to be the execution and cooperation from all departmental units and staff. Therefore, the Group emphasizes on cultivating environmental awareness among the staff. In addition to monitoring the implementation of the environmental protection plan, we encourage our staff to use resources such as water, energy and paper efficiently by promoting reusing materials, water conservation, electricity saving, choosing energy-efficient appliances and minimizing the use of paper. These measures for environmental protection and energy conservation are taken seriously by all staff including the management team to promote a green corporate culture and to realize our mission "to use resources only when necessary and not to waste any if it could be saved".

Minimizing Energy Consumption

The Group implements an integrated top-to-down resource control plan for energy saving in full strength, with participation of all staff members. The management formulated a plan for sewage treatment plants for energy saving and better efficiency in the use of resources. The approved plan will be implemented by the technical and administrative units of the sewage treatment plants. The relevant departments will then plan their usage in energy and other resources accordingly, binding on all the departments. All units of different levels will work closely to achieve our vision of energy conservation.

With regard to the "Management Procedures of Non-compliance, Correction and Prevention", the Group has established a monitoring mechanism to closely supervise the execution of the resource control plan to ensure resources are put to best use. The plan requires every department to maintain statistics on energy and resource consumption where the data could help improve the use of resources and to eliminate wastage.

The resource protection policy aims at saving energy and reducing the use of resources. Concrete measures include arranging different lighting zones, adopting LED lighting systems, turning off lighting in common areas at night, maintaining the room temperature at 25 to 26°C, lowering the energy level of equipment under the condition of meeting the requirements of sewage treatment quality, work environment, and safety, and gradually replace energy-consuming equipment with energy-efficient ones.

The environmental protection plan and related measures have enabled the Group to meet our annual objectives for water and energy consumption in 2020, in which our electricity consumption has notably attained the annual target set for electricity conservation. The use of energy has significantly reduced and our total energy consumption (excluding entrusted operations) in 2020 was 504,496,395 kWh with an energy consumption intensity of 7,643,885 kWh.

Maximizing Water Efficiency

Our water supply business mainly comprises tap water supply and reclaimed water services, supplying the public with quality water sources. We therefore were not involved in issues in sourcing water. We nevertheless strongly promote water saving and maximizing water efficiency.

Water is one of the major control targets in our resource control plan. By reducing the waste of internal water resources, we improved water use efficiency. We have formulated a resource consumption management plan for our sewage treatment plants, and proposed corrective measures for plants that failed to meet standards in their quarterly reviews on consumption data, so as to ensure that water was treasured in all units with little wastage.

During the reporting period, our total water consumption (excluding entrusted operations) was 1,062,538 m³ with a water consumption intensity of 16,099 m³ per facility. On the other hand, our integrated environmental services include sewage treatment, tap water supply, reclaimed water business and heating and cooling services driven by renewable energy, which did not involve packaging material.

5.3. The Environment and Natural Resources

Expanding Environmental Businesses, Maximizing Operation Processes

As an integrated environmental solutions provider, we take environmental protection as our mission. On one hand, we have been innovating and strengthening the operation management of our water utilities projects to sustain our advantages. On the other hand, we have been expanding our business and delving deeper into renewable energy development, technological upgrading, sponge cities, hazardous waste treatment, etc. We aspire to inspire our industry peers and set a role model in providing integrated environmental solutions.

Renewable Energy Business Development

The Group has recognized renewable energy business as one of our development focuses with an aim to replace traditional energy with clean and renewable sources in our business operations. We have taken a proactive approach in operating on renewable energy and launch projects particularly on saving energy and exploring renewable energy technologies. The Group has rich experience in providing heating and cooling services with new energy, the 4 new energy stations owned by the Group has cumulatively delivered heating and cooling services using renewable energy to an area of 1.4618 million and 1.3158 million square meters respectively in 2020 in Tianjin, which set a standard for the clean energy industry and put the low-carbon business model into practice.

Comprehensive Environmental Management of Water Utilities Projects

As sewage treatment plant is one of the crucial facilities in environmental protection projects, the construction and operation of all sewage treatment plants by the Group were made in strict compliance with the environmental assessment procedures, obtained approvals and environmental acceptances upon construction completion from the competent environmental authorities, so that impacts to the surroundings, such as dust, noise, odour and sludge could be controlled during the construction and operation phases.

During the reporting period, the sewage treatment projects under the subsidiaries of the Company strictly complied with the relevant emission standards with all the effluent water quality and odor, noise and solid emission meeting the requirements. The projects are functioning properly. The construction of the sewage treatment facilities followed the relevant construction procedures, and it is proceeding properly.

In the beginning stage of a construction project, the Group would actively embark on the environmental assessment, submit the assessment report to the Environment Protection Department for approval in accordance with the approval procedures, and then strictly implement the environmental measures proposed in the approval document.

During the construction stage of the project, potential environmental impact such as dust, noise, discharge of wastewater and solid waste would all be controlled in accordance with the national requirements and that of Tianjin City with regards to environmental protection. Proper measures would be adopted to minimize the impact on the environment arising from various construction activities.

After the commencement of the project, the construction and installation process of environmental protection facilities would be checked, monitored, and recorded accordingly. The application of the pollutant discharge license would be carried out promptly. Moreover, risk early-warning and emergency plan would be prepared and acceptance examination regarding environmental protection would commence once the project is completed. When environmental issues are spotted, it would be solved in a timely manner. After the completion of the acceptance examination, the environmental management measures adopted during the operational period would be incorporated into the Group's management system in order to develop sound station operation rules. A responsible person for environment protection, under the supervision and control of environmental protection authorities at all levels, would also be selected.

During the operation phase, the Group is committed to controlling the odour and noise emitted from the sewage treatment plants. The Group focuses research resources and invests in the research of odour control, as well as using our own capital to manage the main source of odour. Moreover, all subsidiaries would actively carry out the green plan for plant areas to lower the noise level, eliminate odour and to dispose of the sludge, so as to improve the well-being of the residents in the area and promote harmonious community development.

In accordance with the Environmental Impact Assessment Law of the PRC, we have established a comprehensive environmental management mechanism, which seeks to minimize adverse environmental impacts brought by our business operations. The mechanism includes strict environmental monitoring and sound risk management of major hazards to alleviate our environmental impacts.

Strict Monitoring to Prevent Environmental Pollution

The Group has a strict environmental monitoring system to prevent pollutions or any adverse impact brought to the environment during the sewage treatment process. The content of the monitoring system is guided by those standards set in the "Prevention and Control of Water Pollution Law", the "Prevention and Control of Atmospheric Pollution Law", the "Prevention and Control of Environmental Pollution by Solid Waste Law" and the "Prevention and Control of Pollution from Environmental Noise Law" in the PRC, which have provided the basis for our controls against water, air, solid waste and noise pollutions. By setting up checkpoints along the sewage treatment process, the comprehensive monitoring ensures full compliance with applicable national environmental standards and minimizes solid waste, water, air and noise pollution. During the reporting period, all key pollutant discharge entities of the Company's sewage treatment business prepared the "Environmental Emergency Response Plan", and the plan was approved by and filed with the local environmental protection bureau.

During the reporting period, all key pollutant discharge entities of the Company's sewage treatment business carried out environmental self-monitoring in accordance with the relevant requirements of the government. At the beginning of each year, each entity prepares the "Environmental Self-monitoring Program" for the year based on the actual situation. The monitoring program mainly specifies the monitoring items, monitoring points, monitoring methods, monitoring frequency and analysis methods, etc. The monitoring results are publicized on the local environmental information monitoring platform. Each entity will also file the self-monitoring program and adjustments and changes with the local environmental protection bureau in a timely manner.

Risk Management of Hazard Installations

The Group adopts a proactive approach with robust risk management measures in order to eliminate the potential environmental risks of major hazard installations during the sewage treatment process. Major hazards include production and operation activities that may lead to death or injury and situations where damages would be caused to the environment. The Group pays close attention to the safety management of oil and hazardous chemicals, where the relevant department in charge of oil and hazardous chemicals and sewage treatment plants will follow the "Management Procedures of Oil and Hazardous Chemicals" (CEP.QEHS.P22) to supervise all uses in relevant units, thus reducing the potential pollution to the environment when those hazardous chemicals are used.

6. SOCIAL: CO-CREATING VALUE WITH STAKEHOLDERS

The Group attach great importance to the rights and interests of our stakeholders and hold a strong belief that together we can co-create and share value to achieve solutions where everyone benefits. In 2020, we aspired to grow with our employees as always, so on top of providing our employees with safe workplaces, we provided opportunities to develop their capabilities and potentials. We continued to work together with our business partners to make progress together and inspire each other to achieve more. As with society, we committed ourselves to public welfare. We are happy to share our fruits with the community and bring positive and concrete contributions to different groups.

Sections below detailed the Group's performance in terms of employment, health and safety, staff development and training, labour standards, supply chain management, product responsibility, anti-corruption activities, and community investment.

6.1. Employment

With the belief that employees are the most valuable asset to the Group and the key to success, the Group adopts "people-oriented" management and emphasizes on the importance of employees' rights and benefits. The Group implements a fair recruitment mechanism and adopts an impartial attitude to attract talents. All employees are entitled to a comprehensive pay and benefit system, comprehensively safeguarding the employees' benefits. The Corporate Management Center is responsible for the Group's policies of remuneration and dismissal, recruitment, and promotion, working hours, annual leaves, equal opportunity, diversity, anti-discrimination, other welfare benefits to comply with relevant laws and regulations.

During the reporting period, the Group was not involved in any prosecution or conviction by the Government regarding labor regulations.

Fair and Just Talent Management Principle

We put great emphasis on our employees' rights, development and equality. To safeguard employees' legitimate rights, the Group strictly complies with the national labor laws and regulatory documents and established fair and just recruitment and management systems. The Group completely fulfils legislation under the Labor Law of the PRC, the Labor Contract Law of the PRC, the Trade Union Law of the PRC, the Regulations of Salary Collective Negotiation of Ministry of Labor and Social Security, Collective Contract Regulations and the relevant human resources management laws, regulations and normative documents in Tianjin. We also adhere to the principle of fair employment and promotion to eliminate inequality and discrimination in any forms. In addition, the Group closely observes the Law of the PRC on the Protection of Women's Rights and Interests to safeguard the legitimate rights and interests of female employees.

Comprehensive and Sound Remuneration System

The Group has a well-established remuneration system to safeguard employees' welfare. It is composed of a position-level pay system and a performance-related pay mechanism. Salaries are paid on a monthly or annual basis, both of which take individual performance into consideration and reward outstanding employees according to the achievement of performance targets.

The Group provides attractive remuneration packages and discretionary performance incentives. We implement a comprehensive performance appraisal system to assess employees' performance, and the merit pay is allocated according to the individual appraisal result and the achievement of the annual profit target. At the same time, senior management staff are assessed based on their performance targets. Their assessment results are linked to annual salary. Their annual salary is reviewed alongside assessment and rewarded accordingly.

In 2020, the Group continued to provide employees with a range of social security benefits in accordance with relevant national policies and regulations. The Group made regular and full contributions to employees' housing provident fund and social insurance, including medical, unemployment, work-related injury, maternity insurances, etc. Moreover, with the hope of improving employee's social benefits, as a supplementary of social benefits, we also make contributions to employees' occupational pension, supplementary medical insurance, supplementary housing accumulation fund etc. Apart from the statutory holidays, employees also enjoy annual, marriage, family, maternity, paternity and other paid leaves. In addition, our employees also enjoy the winter heating subsidies, central heating supply subsidy, high temperature allowance, and other social benefits, as well as benefits agreed by different parties.. The Group carefully considers employees' actual needs and provides a wide range of welfare benefits to ensure the living stability of employees. It is effective to show our concern to employees, in order to promote the sense of belonging and stabilize the workforce.

A well-established retirement benefit scheme was established to ensure employees can maintain a reasonable living standard after retirement. The Group is responsible for a basic and proportional amount of monthly retirement insurance and enterprise annuity for the employees. Employees are eligible to obtain basic retirement pensions provided by the local labor and social security departments. This comprehensively safeguards employees' livelihood after retirement.

Warm and Caring Corporate Culture

The Group recognizes "the care for, connection with, and serving the employees" as the starting point and valued outcomes for our organizational work. We continuously drive the staff caring mechanism of the party committee and trade union. In 2020, we optimized the function of the work union in the group in compliance with the "Notification by the Tianjin Municipal Trade Union regarding how to continue working well under the implementation of Covid-19 pandemic control measures". In order to know the difficulties brought to our employees due to anti-pandemic work, and how the Group could actively coordinate and strive our best to solve those difficulties, the trade union and the Party Committee of the group visited and showed care to 554 employees and 189 female workers who stayed at work, worked around the clock, and continued to fight against the pandemic in the front line, as well as 5 relatives of the medical staff who assisted in fighting the epidemic. In order to further implement the requirements of inclusive services and precise services, and earnestly do a good job in the investigation and management of difficult employees, we continuously send the care of the Group to the employees through sending condolences, providing job positions and skills, as well as conducting health checks. In conjunction with the Group's sewage treatment plant to upgrade and expand the capacity, the "Deliver Warmth" project will be implemented on a long-term basis. The leading group will take the lead to visit the grassroots and start the project through using occupational safety and health management system as the carrier to "Deliver Knowledge", "Deliver Cool" and "Deliver Warmth", in order to protect employees' health rights and interests in a comprehensively and multi-channel approach, and effectively motivate the team and employees to work passionately, innovate enthusiastically, work hard to ensure the completion of the water treatment and the compliance of discharge standards. In order to highlight the leading role of advanced models and create a strong atmosphere for entrepreneurship, the Group timely grasps the living conditions and the ideological dynamics of the hardworking workers, and educated and guided the broad masses of employees to concentrate their efforts, strengthen transformation and development and support enterprise reform. During the reporting period, we sent our caring to 6 of the labor models. Over the years, the Group has been insisting on understanding the situation of the grassroot level comprehensively, fully carrying forward the cultural concept of "people-oriented", and building party committees and trade unions into a strong backing for the workforce, allowing employees to truly feel the warmth of the corporate family and strengthen employees' sense of belonging, sense of acquisition, and the sense of honor, forming the merits of the "13th Five-year Plan".

Our Workforce

As of 31 December 2020, there were 2,034 employees in the Group, among which 471 belonged to the Company. 5 employees possess a doctoral degree, 129 possess a master education degree, and 1,054 possess an undergraduate education. The Group employs 990 certified technical professionals, of which 21 are top management staff, 238 are senior management staff, 337 of them are intermediate rank staff, and 394 of them are junior staff.

Our total workforce and turnover rate by employment type and geographical region² are presented as follows.

Total Workforce and Turnover rate by Gender

Gender	Number of employees	Turnover Rate
Male	1,368	5.2%
Female	666	3.6%
Total	2,034	/

Total Workforce by Employment Type

Employment Type	Number of employees	Turnover Rate
Senior Managers of the Company	17	0%
Managers of the Company	105	2.7%
Other Management staff and employees	1,912	5.1%
Total	2,034	/

Total Workforce by Geographical Region

Total Workforce by Geographical Regions



Geographical Region	Number of Employees	Turnover Rate
Northern China Region	791	1.8%
Southwest Region	268	5.9%
Eastern China Region	102	2.0%
Central China Region	430	9.5%
Northwest Region	300	7.0%
Northeast Region	142	9.2%
Hong Kong Region	1	0%
Total	2034	/

² The statistics dimension of all data are workers who signed a labor contract with the subsidiaries, all the expatriates of the Group will not be counted in all figures.

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Employee Turnover by Age Group

Age Group	Number of Employees	Employee Turnover Rate
Aged 19 or below	0	0%
Aged between 20 – 29	451	8.6%
Aged between 30 – 39	804	3.9%
Aged between 40 – 49	575	1.7%
Aged 50 or above	204	8.3%
Total	2,034	/

6.2. Health and Safety

The Group is committed to sustaining occupational health and environmental safety as our top priority. The occupational health and safety management policy adheres to standards set out in the "Occupational Health and Safety Management System Requirements" (ISO45001:2018). By checking our working equipment, monitoring hazard installations, nurturing employees' safety awareness and other policies, we have established a safe and comfortable working environment. The Safety Assurance Center of the Group is responsible for implementing policies and upholding relevant laws and regulations in providing a safe working environment and protecting employees from occupational hazards. During the reporting period, there was 0 lost days due to work injury and no work-related fatalities of the Group's employees.

Monitor Workplace and Safety Equipment

During the reporting period, all departments, following national safety standards, established a maintenance plan for work facilities and safety equipment under the occupational health and safety management system so as to create a safe working environment. All departments adhere to the "Control Procedures of Security and Warning Signs" (CEP. QEHS. P32), and perform regular inspections and maintenance on fire safety facilities and equipment. All the design, production, installation and use of all facilities and equipment are in line with the national or professional standards. In addition, all units must comply with the "Control Procedures of Occupational Safety and Health" (CEP. QEHS. P28) in maintaining the cleaning and safety procedures in office buildings, laboratories and production sites. All departments must report to the relevant departments once a year according to the actual execution of the target plan. Relevant departments regularly review the maintenance plan, and adjust the plan according to execution so as to continuously improve the occupational health and safety management system.

Prioritize Hazard Installations Control

The occupational health and safety management system, in particular, imposes stringent control over the use of dangerous goods. The "Regulation on the Safety Management of Hazardous Chemicals", the "Regulations on Labor Protection in Workplaces Where Toxic Substances Are Used" and the "Rules on Safety Use of Chemicals in Workplace" are the guiding principles for developing the environmental and safety management plan of different departments. This plan clearly stipulates objectives, measures, timetables, responsibilities, and rights of each department, prioritizing the control of hazardous installations. During the reporting period, workplace procedures fully met the statutory safety standards and requirements, which minimized the potential risks of using dangerous goods to ensure employees' occupational safety.

Nurture Employees' Awareness on Occupational Safety

The Group pays attention to cultivate the occupational safety awareness amongst employees, by establishing safety education training programs according to employee's duties as well as conducting safety education training before employees work on new technologies, equipment or materials. During the reporting period, employees fully complied with all occupational safety procedures and measures.

Concerning about the Occupational Safety of Female Employees

At the same time, the Group takes the initiative to care for the occupational health and safety of female employees, stipulating that all female employees should comply with workplace regulations titled "Special Rules on the Labor Protection of Female Employees", the "Provisions on the Scope of Prohibited Labor for Female Employees" and the "Provisions on Female Workers' Healthcare at Work". Female employees have taken various appropriate safety measures in different working environments.

6.3. Development and Training

The Group uphold a people-oriented principle of talent management, and regard employees' career development as our mission. In making every businesses or management-related decision, we seek the common ground where the Group and our talents can grow together to benefit both employees' growth and the Group's development. Drawing on our experience in market development and technology research and development, we have gradually built a sound and efficient human resources management system. The Corporate Management Center of the Group is responsible for the policies on enriching employees' knowledge and skills to carry out their work duties.

Dual-Channel Training

We are committed to forging a fair, harmonious and competitive internal platform to enhance the ability, diligence and the sense of responsibility of our personnel in various fields and to inspire them to see big pictures and be innovative. At the same time, the Group's strategies in the "13th Five-Year Plan" imparted our talents with our integrated strategic measures of being "technology-based, moderately expanding, capital-driven and protected by laws", where we reached a consensus to realize the parallel developments of employees' career and job performance. the Group's "dual-channel" management of the administrative and technical models has broadened the professional development of technical talents, conducive to the long-term sustainable development of our talents.

Comprehensive Potential Development

The Group developed and implemented a comprehensive training program targeting the management, sales departments and basic level units. This program was further divided into three major modules namely mandatory training, pre-job training and self-training. The self-training program included two modules of business training and integrated training, which was tailored according to the rank, position and ability of individuals. The program aims to strengthen the employees' knowledge and skills, improving their work efficiency and career growth. In addition, internal training sharing sessions were conducted, which was held by our staff to facilitate employees' understanding of other departments' business, and to encourage learning from each other. Our comprehensive training program encourages a sense of responsibility, integrity and professionalism, which will strongly support the Group's development.

The percentage of employees trained by gender and by employee category is presented as follows with the relevant average training hours completed per employee.

The Percentage of Employees Trained and the Average Training Hours Completed by Gender

Gender of Employees	Percentage of Employees Trained	Average Training Hours
Male	99.6%	59
Female	98.5%	58

The Percentage of Employees Trained and the Average Training Hours Completed by Employment Type

Employment Type	Percentage of Employees Trained	Average Training Hours
Senior Managers of the Company	100%	141
Managers of the Company	100%	105
Staff	99.2%	56

6.4. Labour Standards

The Group strictly complies with all labor laws. We have in place a comprehensive recruitment mechanism, which stringently abides by the employment legislations and prohibits child and forced labor. The recruitment of all employees and trainees complies with relevant laws and regulations.

The Corporate Management Center of the Group is responsible for compliance with policies preventing child and forced labor and observing relevant laws and regulations that have great impact on the Group.

The Group continued to observe all relevant labor regulations strictly in 2020, including the Labor Law of the PRC, the Labor Contract Law of the PRC, the Trade Union Law of the PRC, the Regulations of Salary Collective Negotiation of Ministry of Labor and Social Security, Collective Contract Regulations, the Social Insurance Law of the PRC and other relevant human resources management laws, policies, regulations, normative documents and ordinances in Tianjin, which protects employees' legitimate rights We prohibit the employment of workers under the age of 16 in any of the Group-related businesses.

During the year, the Group was not involved in any prosecution or penalization under relevant labour standards.

6.5. Supply Chain Management

The Group provides quality products and services for the general public. In addition to the strict service requirements, we set high standards for our supply chain in provision of products and services. The Safety Assurance Center of the Group is responsible for overseeing the relevant environmental and social risk policies in our supply chain. With the Quality Management Systems (ISO9000) standards as our guidelines, we have established a rigorous quality control system to improve our procurement mechanism and carefully select our suppliers to provide the best quality products and services to the general public. During the reporting period, we had 36 suppliers. Our supplier's distribution by geographical region is presented as follows:

Geographical Region*	Number
Northern China Region	6
Northeast Region	2
Eastern China Region	3
Central China Region	15
Northwest Region	6
Southern China Region	4

*Notes:

Northern China Region: Beijing Municipality, Tianjin Municipality, Hebei Province, Shanxi Province, Shandong Province, Inner Mongolia Autonomous Region

Northeast Region: Liaoning Province, Jilin Province, Heilongjiang Province

Eastern China Region: Shanghai Municipality, Jiangsu Province, Zhejiang Province, Anhui Province, Fujian Province

Central China Region: Henan Province, Hubei Province, Hunan Province, Jiangxi Province, Sichuan Province, Chongqing Municipality

Northwest Region: Shaanxi Province, Gansu Province, Qinghai Province, Ningxia Hui Autonomous Region, Xinjiang Uyghur Autonomous Region

Southern China Region: Guangdong Province, Guangxi Zhuang Autonomous Region, Yunnan Province, Guizhou Province, Hainan Province

The Group established an internal tender panel for the quality control system. The panel consists of departmental leaders of the Group, the Operation and Management Center, Finance Management Center, Construction Management Center, Safety Assurance Center, Technological Innovation Center, Supervision Office and other related personnel. The panel controls and supervises the procurement of raw materials and services. With the principle of being open, fair, just and honest, the panel stipulates the requirements for public tenders, including bidder qualifications, proposals, service commitments, company reputation and track records, which state clearly the social responsibility, business ethics, quality standards and other requirements.

According to the values of the contract, the Group employs different procurement methods including internal procurement, multi-party selection, competitive negotiation and open tendering. We evaluate our suppliers against stringent internal standards. A special tender evaluation committee was also established to adopt a "comprehensive, meticulous, and systematic" selection approach for screening suppliers. This ensures each part of the supply chain achieves an ideal quality standard.
6.6. Product Responsibility

In 2020, the Group remained committed to providing quality reclaimed water, efficient sewage treatment services and reliable tap water supply to our clients. All our sewage treatment plants strictly complied with the relevant laws and regulations, and were awarded the "Level A Qualification Certificate for Environmental Protection Facilities Operation (Sewage)" and the "Level A Qualification Certificate for Environmental Protection Facilities Operation (Industrial Wastewater)" by the State Environmental Protection Administration in recognition of our quality water services and operation.

The Safety Assurance Center of the Group is responsible for overseeing policies on health and safety related to products and services, and observing relevant laws and regulations that have great impact on the Group.

With a wide range of services, significant number of clients and therefore profound impact, the Group executes high standards on its products and services. With the Quality Management System Requirements (ISO9001: 2015) as our principal guideline, we established a comprehensive quality management system, which was implemented by the Safety Assurance Center. The system features a robust inspection mechanism and various types of emergency measures to ensure water and sewage treatment quality, and to monitor all aspects of our services quality.

Our business was not involved in product complaints or product recalls due to safety and health reasons.

Thorough Inspection Management

The Safety Assurance Center takes the approach of "hierarchical management and divisional responsibility" to perform quality inspections across our operation. The quality management departments at all levels conduct training and assessment for management staff, while basic level units inspect and monitor the use of facilities, operation processes, plant construction, working environments and business data management. With cooperation of all levels of employees, inspection frequency is adjusted according to the rank and inspection needs at the workplace. To ensure quality services, comprehensive monitoring and control of operation processes are adopted.

Comprehensive Emergency Measures

The Safety Assurance Center has developed contingency plans and precautionary measures against all types of potential crises to minimize the risk of operation crises, and to ensure smooth business operations while protecting the interests of our customers. A contingency planning committee was established by the Group to formulate contingency plans for different crises according to the data collection of abnormal situations, risk assessment and contingency assessment, including safety production on-site handling plans, special contingency plans and comprehensive contingency plans, which are submitted for internal and external approvals. The approved contingency plans are enacted and rehearsed regularly across departments and basic level units to ensure that all our employees are well prepared to deal with potential emergencies.

Because of the well-established and comprehensive quality inspections and contingency plans, during the reporting period, our tap water supply process has fully met the "Standards for Drinking Water Quality of the PRC" (GB5749-2006) and the dehydration rate of sludge from our sewage treatment plants has reached 100%. All subsidiaries of the Group have strictly complied with the applicable national standards on treated effluent, and our treatment procedures have now been regarded as the industry standard. The Group even helped to set the industry standards by contributing to the compilation of the "Urban Sewage Treatment Plant Operation, Maintenance and Safety Technical Regulations" (CJJ60- 2011) and the "Water Quality Standard for Industrial Water Reuse of Municipal Reclaimed Water".

Regarding intellectual property, the Group formulated system documents concerning patent registration and protection with reference to the "Patent Law of the PRC", "the Rules for the Implementation of the Patent Law of the PRC" and the Group's real needs to standardize the proposal, assessment, application and protection of patents so as to safeguard the intellectual property of the Group.

Besides, our business does not have any issues relating to consumer data and privacy.

6.7. Anti-Corruption

The Group endorses the highest standard of business ethics and upholds the vision of "The Party supervises its own conduct and enforces strict discipline". The Group has a rigorous anti-corruption mechanism for compliance in place based on the party's regulations and guidance such as "Party Constitution of the Chinese Communist Party", the "Regulations of the Chinese Communist Party on Integrity and Self-discipline", the "Regulation on the Chinese Communist Party on Disciplinary Actions", the "Chinese Communist Party Internal Supervisory Regulations (Interim)" and the "Regulations on Integrity of State-owned Enterprise Leaders". We implement a series of policies including integrity dialogues, commitment to implementation and supervision mechanism, internal reporting mechanism and proper information disclosure to combat illegal practices, maintain a strongly intolerant attitude towards corruption and create the group-wide reputation of integrity. The supervision office of the Group is responsible for work related to our employees' conduct, integrity and combating corruption.

In 2020, the Group and its staff were not involved in any prosecution for corruption or other commercial crimes. The Group adopts the above regulations and laws as the guiding principles for supervision to closely monitor the discipline of all staff. The management of the Group, all departments, all the subsidiaries, their senior officers and all staff members are subject to discipline monitoring and administration supervision from the supervision office. Departments and officers in charge of finance, assets and engineering construction are the main focus for supervision. The supervision office is entrusted with the rights of supervision, inspection, investigation, recommendation, participation and punishment so as to combat all misconducts.

Internal Reporting System

Employees at all levels have the right to report any misconducts or illegal practices of the Group, departments and individuals, including offenses from financial accounting and internal supervision, to the disciplinary committee of the Group. The reports would be thoroughly investigated by the supervision office of the Group, which is empowered by the Group's party committee and disciplinary committee. Once the investigation reveals violations of laws and regulations, the Group will pass the case to the prosecution authority for further handling without hesitation.

Integrity Commitment and Implementation

The Group has formulated the "Measures for the Implementation of Integrity Commitment" under the Chinese Communist Party Committee of the Tianjin Capital Environmental Protection Group Company Limited. All leading officers, party members and key personnel are subject to the surveillance by the public and the Group. Each of them is required to commit to integrity in his own name, and disciplinary actions will be taken against those with misconducts such as bribery and corruption.

Integrity Dialogues

In 2020, the Group continued to uphold the integrity atmosphere in our operation and cultivate self-discipline amongst employees. We established the integrity dialogue system for the party members and leading officers of the party committee of Tianjin Capital Environmental Protection Group Company Limited according to the "Integrity Dialogue System for the Party Members and Leading Officers of the Tianjin Infrastructure Investment Group", where the party organizations and individuals would be reminded or alerted, and on the issue of integrity, be warned or criticized through formal conversation, warning and admonishment. This practice contributes to our corporate culture shared by all staff members that we are at all times self-disciplined in upholding integrity and abiding by the laws.

Open and Fair Governance

The Group has complied with the listing rules in both Hong Kong and Shanghai. Independent auditor is appointed to prepare the Group's financial statements and conduct an external audit on our internal control. The management of the Group seeks to eliminate all fraud or unethical behavior. At the same time, the Group has taken a proactive approach in observing its obligation to disclose information, by holding regular shareholder meetings to share our development plans with investors to achieve openness and fairness.

6.8. Community Investment

The Group is strongly devoted to shouldering corporate social responsibility. As our tap water supply business is closely related to community livelihoods, we take initiative to deliver reliable sewage treatment work and a quality water source for the public. We are also very proactive in initiating social development and fundraising projects, creating value for different communities and advocating the traditional virtues of helping people in need, caring for the poor and alleviating poverty. The Party-masses Department of the Group is responsible for the policies on community engagement and ensuring its activities have taken local community interests into consideration.

Bearing Socially Responsible and ensuring Water Safety

The business of the Tianjin Water Recycling Co., Ltd is closely connected with the public. We hold tightly around the core values of "dedicating to ecological civilization and contributing to a better world", and take the responsibility of supplying a sustainable quality water source seriously, so as to fulfill the social responsibility of the Water Recycling Company.

The Water Recycling Company has a refined, streamlined, systematic and unified water service system to ensure "Safe Supply, Worry Free". This year, we use our caring heart for the people to help the government and the community. The group upholds the mission to work for the people by improving the processing system of the city management and convenient service hotline, 8890, as well as efficiently commence work on the smart petition system and Water Recycling Company convenient service hotline, which the case completion rate and satisfaction rate of the Tianjin infrastructure investment group remained high. The group also actively respond to the call for action by local governments with the hope of sharing the burden with the government, for instance, accomplishing the fisherman's' relocation project in Tianjin West Xiaoliang Village, Hanning Lushui Village, and Honghu, as well as completing the East-West counterpart poverty reduction activities and other voluntary work.

In the meantime, the Group is building a multi-channel payment platform in order to provide simple and convenient water service. We are actively promoting WeChat, Alipay, Cloud QuickPass, mobile APP, WeChat public account, POS machine, self-service water sales equipment and other online payment, so that users can simply pay on the internet or through mobile phones.

Secondly, the Group has set up a 24-hour service hotline and pipe network maintenance center to enforce our customer-centric service management system. We actively improve the hotline handling, network dispatch, receive, and return orders, so as to improve the efficiency and effectiveness of the hotline handling, shorten the handling process, and establish the spot check callback mechanism to enhance the convenience of service efficiency.

Thirdly, the Group has a team of professionals for repair and maintenance on standby 24 hours a day. Based on the "Five Senses" and "Eight Elements" work methods, we shaped a high-quality water supply regulation system and provided solutions to quickly locate and tackle leakages. These all ensured a safe, standardized and well-managed water supply service. By integrating the development concept of intelligent water platform, a high-quality water supply dispatching system with interactive regulation of data such as water pressure and flow in plant network is established to realize real-time monitoring for production and operation 24 hours a day, rationally optimize water supply dispatching, improve the ability of emergency linkage and accident response, and use intelligence and big data technology to improve quality and efficiency for enterprises.

Fourthly, the Group has optimized customer relationship management. We broadened the room of service space for large-scale users, established a joint scheduling model, subsidence management, real-time monitoring, automatic control of water volume and pressure; regularly visit our users to listen to their opinions and suggestions in order to make continuous improvement on our service quality. Water Recycling Company has established demonstration sites for greening and water addition, innovating water intake models, and promoted the use of recycled water in municipal gardens and greening.

Socially-Committed: Caring for Different Communities

As a state-controlled listed company, the Group while undertaking the main responsibility and economic indicators, the Company fulfills its environmental responsibility to the society with a high sense of responsibility. We strive to maximize the comprehensive value of the economy, society and environment with the least resource input and the smallest social environmental cost, so that we are trusted by the government and the public. In 2021, the Group will continue to use Xi Jinping's thought on Socialism with Chinese characteristics for a new era as our guide to adopt the new vision for development completely, concisely and comprehensively. By adhering the corporate vision of "returning clean water to the world, delivering fresh air to the earth" and execute the corporate mission of "purify the ecological environment, enhance living quality", we act and work actively and continuously to fully promote the "14th Five-Year Plan" Strategic Plan's goals, provide high quality, effective, and comprehensive environmental service in order to build a harmonious growth environment for the employees and create the greatest value for the society.

The Group attaches great importance to public welfare undertakings and focuses on the common development of internal and external development. While highlighting the development of the enterprise itself, it firmly grasps the important requirements of the new era of university construction and development, strengthens community governance, and promotes volunteer service, and strives to give back to the society, which is the social responsibility that a state-owned enterprise should have.

In 2020, with the aim of actively responding to the government's call to build on the voluntary spirit of committing to and serving the community, as well as spreading scientific knowledge on blood donation, the Group has launched the "donating blood to spread love" campaign on 14th May 2020. Many party cadres and workers had signed up for it and sparked off a caring wave of blood donation in the Group. There were a total of 35 people who joined the campaign, in which 24 of them were qualified, and the total amount of blood donation was 4,900 ml.

In order to implement the "Tianjin Municipal Domestic Waste Management Regulations", the Group launched a volunteer work promotion event named "Achieve civilization through waste sorting". The event was carried out in three dimensions, namely "realization", "integration" and "assurance". As a result, a green and healthy way of living was promoted, a new trend of environmentally friendly corporate culture was created. The "realization" of the importance of waste sorting could ensure that the message of living a green life is properly delivered. The "integration" of people in an environmentally friendly culture could ensure the spirit of living a green life is engraved in people's hearts. The "assurance" of action could ensure the promotion is effective.

To thoroughly implement the spirit of President Xi Jinping's important indication to stop food waste, as well as fulfilling the deployment requirements by the Municipal Committee, the Group has actively organized and launched the thematic campaign "Practice frugality, Object waste", which a code of conduct was set, and all employees could voluntarily sign a petition titled "Practice frugality, Object food waste". 16 pieces of tips on enjoying meals in an economical way and 108 promotional posters are being posted. 15 banners were being hanged, and 21 promotional slogans were looped on a LED screen.

For the sake of promoting the traditional virtue of the Chinese Nation's respect for the elderly, and further advocate a new trend of respecting, caring, and helping the elderly, as well as letting the elderly to spend a warm and happy Chung Yeung festival, our Xi'an Company's party branch co-organized a dumpling making activity with the Jinyu Moujia Community on 23rd October, while the Bayan Zhuor party branch organized and launched the thematic party event "Respect the elderly from my heart, help the elderly from my start", and visited the Kangtai elderly home on 20th November.

In order to mobilize all sectors of society to actively participate in the construction of ecological civilization, and further establish the concept of energy conservation and ecological civilization, our Jiuquan Company., together with the Suzhou District People's Government and the Municipal Administration Affairs Bureau, launched the 2020 Energy Conservation Promotion Week themed "Lucid Waters and Lush Mountains, Energy Saving and Efficiency" from 29th June to 5th July.

Implementation of targeted poverty alleviation and enhance social awareness

The Group has also actively implemented the spirit of President Xi Jinping's speech "Speaking at the Symposium on Poverty Alleviation", in accordance with the requirements of the Tianjin Municipal Committee's "Implementation Opinions on Launching a New Round of Poverty Alleviation Pairing Support in Difficult Villages" and the arrangement of the party committee of the City Investment Group was arranged to help the work of Xixiaoliang Village in Nancai Village. The village and town governments and the village committees have repeatedly communicated and coordinated to form a project implementation plan. The total donation amount from 2018 to 2020 was RMB4,167,100. As of January 2020, the total amount has been disbursed. The Group will always promote the assistance and relief in the primary position, to improve the village infrastructure, enhance the appearance of villages and villages as an entry point, and strive to stimulate the endogenous development momentum of the village. The village and the living standards of the villagers have improved significantly.

In order to fully implement the requirements of "Implementation Plan for 2020 on Promoting Quality Collaboration in Poverty Alleviation and Support Between the Eastern and Western Regions for Accomplishing Poverty Elimination Tasks On Schedule of Tianjin", as well as to ensure that the 2020 main poverty alleviation missions identified by the Municipal Committee, the municipal government and the Tianjin Infrastructure Investment Group were accomplished, the Group donated RMB500,000 to public benefit organizations to support the construction of the assistance regions in Xiqing District of Tianjin and won the appreciation of the of Xiqing District Red Cross Society and Special Group for Social Mobilization.

In order to actively respond to President Xi Jinping's call to "Give a helping hand to Hubei during its most difficult times", the general party branch of the Group and the general Communist Youth League branch of the group visited Wuhan and expressed sympathy to the citizens immediately after the end of the Wuhan lockdown and the restart of Hubei. We also contact the subsidiaries of the Group in Wuhan, Chibi, Honghu, etc., to help with the selling of Slow-selling agricultural, side-line and fishery produce. On 29th May, an online selling campaign titled "Love is blooming under the epidemic" was organized. By using the "Video Cloud live broadcast" technology, employees could "purchase instead of donate" "buy instead of volunteer", and help Hubei to resume work and production. A total of 612 employees joined the event, 1842 packs of fish cakes were sold and the total revenue of RMB46,050 was raised.

In order to fulfill the social responsibilities as a state-owned enterprise, and also to respond to the poverty alleviation requirements of the Xianning Municipal Government, the Xianning branch of the Wuhan Company in June 2020 targeted Lushui Village, Gaotieling Town, Jiayu County, Xianning City to carry out pro-poor measures. Lushui Village is one of the 12 key poverty-stricken villages in Jiayu County while it is also a Soviet revolutionary base area recognized by the Ministry of Civil Affairs, with rich red culture and green tourism resources. In 2019, the village planned to build a ring-shaped stone road to develop the tourism industry, and the total amount of investment including land expropriation fee, compensation for young crops, cost of purchasing machineries for road pavement and ground leveling works, is RMB220,000. However, due to the village's relatively low collective economic income, the village could only raise RMB120,000, which means that the village still needs RMB100,000 more to commence the project. Therefore, to support the tourism industry of Lushui Village, and let them get out of poverty as soon as possible, the Xianning branch of the Wuhan Company donated RMB100,000 to the village.

The Group will put the well-developed poverty alleviation work as a major political task. On the basis of financial and technical assistance, we will continue to improve the quality by improving the resources allocation in various business areas such as engineering construction and environmental governance. We will actively communicate with the working group, to help ensure the appropriateness of the uses of funds and effectiveness of monitoring, so as to prevent misappropriation of funds. We shall use practical actions to implement the General Secretary's important exposition on poverty alleviation, and promote China's great practice of poverty alleviation.

Active coordination, prevention and control of the disease

To face with Coronavirus disease (COVID-19) situation in 2020, as a state-owned listed company with production and operation in 15 provinces, cities and autonomous regions in the country, the Group focused on key tasks, such as sewage treatment, recycled water and potable water supply, new energy for heating and public concerned construction projects at the first moment, seriously implementing various deployment requirements of the Ministry of Ecology and Environment, Tianjin and the government of the project's territories regarding epidemic prevention, fulfill our political and social responsibilities, fully ensuring fundamental means of livelihood under the pandemic situation, and fulfilling the Group's responsibility and mission towards the government and the people. Respond quickly and arrange actively to establish an epidemic prevention and control leadership system as soon as possible and coordinate all tasks during the epidemic comprehensively. All operating projects operating 24 hours maintained compliance with standards, and ensured the smooth progress of various businesses such as sewage treatment, reclaimed water, tap water supply, new energy supply, and hazardous waste disposal in the locations where Tianjin and regional companies are located, and safeguarding people's livelihoods and maintained social stability for the local government. In Hubei, where the epidemic was the most severe, subsidiaries in different regions helped each other and fight against the epidemic by carrying out preventive control and inspections, coordinating and controlling stocks and human mobility consistently. As a result, there was no outbreak of the virus in the four subsidiaries in Wuhan, Honghu, Chibi, and Xianning, contributing to the water environment safety of Hubei during the epidemic. During the epidemic prevention and control period, the Group conducted scientific research quickly, and took the lead in publishing dedicated papers to fill the gap in the industry. The paper also helped to eliminate social doubts, and strengthened the confidence of practitioners.

Meanwhile, at the critical stage of resuming production, the Company will consolidate strength to jointly fight the epidemic and promote economic and social development, unite and lead all party members, cadres and employees to carry out joint prevention and control, mass prevention and mass governance. The Group will also constantly weave tight lines of production and operation, construction projects, and internal control lines. We shall coordinate all tasks of enterprise reform and development, and stable operation of the economy of the Group while resolutely winning the epidemic prevention battle.

In 2021, the Group will continue adhering to the corporate mission, constantly forging ahead and striving towards the strategic goal of an integrated environmental service provider. While consolidating the basic business of water treatment, we will continue to develop new strategic businesses such as new energy, scientific research and development, sponge city, hazardous waste treatment, to contribute greater strength to the construction of ecological civilization, achieve a win-win situation for enterprises, society and various stakeholders, and promote economic development, social harmony and stability.

HKEX ESG REPORT MAPPING WITH GRI STANDARDS

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A. Environmental Aspect A1: Emissions				
	types of emissions and respective emissions data.	305-1, 305-2. 305-3, 305-6, 305-7	19-20	
	enhouse gas emissions in total (in tons) and, where appropriate, intensity per unit of production volume, per facility).	305-1, 305-2, 305-3, 305-4	20	
	al hazardous waste produced (in tons) and, where appropriate, intensity per unit of production volume, per facility).	306-4	21	
A1.4 Tota	al non-hazardous waste produced (in tons) and, where appropriate, intensity per unit of production volume, per facility).	306-2	21	
A1.5 Desc A1.6 Desc	cription of measures to mitigate emissions and results achieved. cription of how hazardous and non-hazardous wastes are handled, reduction initiatives results achieved.	305-5 306-2 306-4	19-20 21	
in 'C	ect and/or indirect energy consumption by type (e.g. electricity, gas or oil) in total (kWh 000s) and intensity (e.g. per unit of production volume, per facility).	302-1, 302-3	23-24	
per f	er consumption in total and intensity (e.g. per unit of production volume, facility). cription of energy use efficiency initiatives and results achieved.	303-1 302-4,	24 23	
	cription of whether there is any issue in sourcing water that is fit for purpose, water iency initiatives and results achieved.	302-5 303-2, 303-3	24	
A2.5 Tota	al packaging material used for finished products (in tons) and, if applicable, with rence to per unit produced.	301-1	24	
A3.1 Desc	<i>e Environment and Natural Resources</i> cription of the significant impacts of activities on the environment and natural urces and the actions taken to manage them.	304-2, 306-3	24-26	
B. Social Employment and Labor Practices Aspect B1: Employment				
	al workforce by gender, employment type, age group and geographical region.	102-8-a, 102-8-b, 102-8-d, 405-1	29-31	
B1.2 Emp	ployee turnover rate by gender, age group and geographical region.	401-1	30-31	

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B2.2 Lost days due to work injury.	403-2	31		
B2.3 Description of occupational health and safety measures adopted, how they are implemented and monitored.	N/A	31-32		
Aspect B3: Development and Training				
B3.1 The percentage of employees trained by gender and employee category	N/A	33-34		
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B3.2 The average training hours completed per employee by gender and employee category	404-1	33-34		
Aspect B4: Labour Standards				
B4.1 Description of measures to review employment practices to avoid child and forced labor.	408-1-с,	34		
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B4.2 Description of steps taken to eliminate such practices when discovered.	408-1-с,	34		
	409-1-b			
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B5.2 Description of practices relating to engaging suppliers, number of suppliers where the	308-1	35		
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Aspect B6: Product Responsibility				
B6.1 Percentage of total products sold or shipped subject to recalls for safety and health reason	s N/A	36		
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B6.3 Description of practices relating to observing and protecting intellectual property rights.	N/A	37		
B6.4 Description of quality assurance process and recall procedures.	N/A	36		
B6.5 Description of consumer data protection and privacy policies, how they are implemented and monitored.	N/A	37		
Aspect B7: Anti-corruption				
B7.1 Number of concluded legal cases regarding corrupt practices brought against the issuer or	205-3	38		
its employees during the reporting period and the outcomes of the cases.				
B7.2 Description of preventive measures and whistle-blowing procedures, how they are implemented and monitored.	102-17-а	38-39		
Aspect B8: Community Investment				
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culture, sport).	200 1	5, 1)		
B8.2 Resources contributed (e.g. money or time) to the focus area.	201-1	39-45		