



CHINA INTERNATIONAL HOLDINGS LIMITED

(Registration No. 23356)
(Incorporated in Bermuda)

2021 Sustainability Report

CONTENTS

BOARD STATEMENT	3
CORPORATE DEVELOPMENT UPDATE	4
CURRENT OPERATIONS	5
ENERGY AND CHEMICALS CONSUMPTION	6
HUMAN RESOURCE	8
HEALTH AND SAFETY	10
CUSTOMER SERVICE AND COMMUNITY	11
IMPACT OF COVID-19.....	12

Board Statement

The Board of Directors is pleased to present the 2021 Sustainability Report of the Group. As the Group's main business are in water treatment and distribution, this Sustainability Report will focus primarily on the water operations of CIHL (Tianjin) Water Development Limited during the year 2021.

The Board has identified the following factors that have significant impact on sustainability of our operations:

- Energy and Chemicals Consumption
- Health and Safety
- Training and Development
- Employee Engagement
- Customer Satisfaction

This Report comprises the following sections:

1. Corporate Development Update
2. Current Operations
3. Energy and Chemicals Consumption
4. Human Resource
5. Health and Safety
6. Customer Service and Community
7. Impact of Covid-19

1. Corporate Development Update

CIHL (Tianjin) Water Development Limited (“Tianjin Water” or “Company”) is an integrated water supply company involved in the processing of raw water and reclaimed water, distribution of treated water for industrial and domestic no-drinking uses, and the provision of engineering services to customers in Binhai New District in Tianjin City, China. The Company owns its own processing plants and distribution networks. Tianjin Water was established in September 2004 as a joint venture and as of 31 December 2020, owns and operates the Beitang Water Plant and the Xinhe Water Plant.

The Beitang Water Plant is located near Beitang Reservoir, and takes in raw water from Beitang Reservoir as well as Huanggang No. 1 Reservoir and Huanggang No. 2 Reservoir. Beitang Water Plant commenced operations in March 2006. The water treated by Beitang Water Plant complies with the standard of non-drinking water for urban residential and industrial uses (“城市污水再生利用、城市杂用水水质标准”).

The Xinhe Plant, completed in 2019, is located in the Industrial Development Zone for Tianjin Binhai Hi-tech and New-tech, and is designed to treat the water discharged from a third-party-owned sewage treatment plant to the standard of Tianjin Municipal Standard Class One A. Part of the treated water is discharged into environment and the rest is further treated to the standard of reclaimed water suitable for industrial and domestic non-drinking uses, using UF+RO processing technology. The reclaimed water is fed into the network of pipelines owned by Tianjin Water and sold to customers.

Lingang Water Supply Plant, under construction since April 2021, is located in the Lingang Industrial Zone in Tianjin. Once completed in 2022, it will supply water to a new area for the Company, expanding our service area to the north of Lingang Industrial Zone.

The Company’s network of pipelines covers the core area of Tianjin Binhai New District (天津滨海新区), which is located between Haifang Road in the East and Tangjin Expressway in the West. It covers Beitang Hi-tech Zone, Tanggu Ocean Hi-tech Zone, Dongxigu Area, Xiangluowan Business District, Lingang Economic Zone, Tianjin Port Bulk Cargo Logistic Centre, Central New Town North District, Tianjin Avenue area, South New Town. It will be further developed in accordance with the urban development plans of the service area, which is approximately 300 square kilometers in size. Since its establishment, the Company through its water treatment services has contributed greatly to the development of Tianjin Binhai New District (天津滨海新区).

Xinhe Water Plant

Tianjin Water successfully completed the whole project by the end of 2019. The project comprises two processes. The first process is to treat discharged water from a third party sewage treatment plant. This treatment is necessary to enable the discharged water to meet the newly implemented Tianjin Municipal Standards before discharging. The second process is to further treat the dischargeable water into re-usable water so that the treated water can be reused for industrial and domestic uses. The plant occupies an area of 20,016 square meters.

Beitang Water Plant

During 2018, the Beitang Water Plant started to take water from the Huanggang No.2 Reservoir as the Beitang Reservoir, the previous source of raw water for the plant, had been reclassified by the government as water resources protection zone.

It is noteworthy that, since the commencement of commercial operation of Xinhe Water Plant, the use of raw water has decreased dramatically. This is because the reclaimed water from Xinhe Plant uses the treated sewage water instead of raw ground water. This switch of source from raw ground water to reclaimed sewage water is a great contribution to a more sustainable environment.

Lingang Water Supply Plant (天津临港水务有限公司临港水厂)

Lingang Water Supply Plant was established by Tianjin Lingang Water Supply Company Ltd, a subsidiary of the Company, to serve the northern area of Lingang Industrial Zone. The project is located in the northwestern part of Lingang Industrial Area, Tianjin, occupying an area of 10,595 square meters. It is designed to have a capacity of 25,000 tonnes per day.

The construction on Lingang Water Supply Plant started in April 2021, having achieved all necessary approvals and financing. It is expected to complete in the second half of 2022, with a total investment of RMB75.48 million.

2. Current Operations

By the end of 2021, Beitang Water Plant has maintained daily production capacity of 50,000 cubic meters per day. The Xinhe Water Plant has achieved operational capacity of 70,000 cubic meters per day for discharging treatment and 50,000 cubic meters per day for reclaimed water. During the year, the network of pipelines increased by 62.17 kilometers, to reach a total network size of 509.73 kilometers, serving 564 corporate and commercial customers.

In 2021, the Group supplied a total of 11,783,700 cubic meters of water to its customers. The total area of plants and greenery watered by the water from our network has increased by 1.7032 million square meters to reach 25.6257 million square meters. Water used for watering plants and greenery was about 2.495 million cubic meters, accounting for 14.45% of total water supplied by the Company.

In 2021, the total number of residential customers served by the Company increased by 4,977 to about 113,000 homes. Residential consumption reached 1.6684 million cubic meters, and accounting for 14.15% of total water supplied in the year.

In 2021, the number of office and commercial users increased by 17, with total consumption of 0.5015 million cubic meters of water, accounting for 4.26% of total water supplied.

In 2021, the total number of industrial customers remains at 19. Water supplied to industrial users amounted to 7.9106 million cubic meters, accounting for 67.14%, reflecting a general trend of weakening economic growth in Tianjin amid Covid-19 .

2021 Water Use Analysis

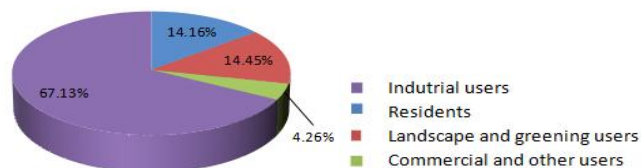


Chart 1: Distribution of Water Utilization

3. Energy and Chemical Consumption

Energy Consumption

The Company continually strives to increase efficiency in its consumption of energy and chemicals.

The Company has upgraded the automation for plant operations, improved safety and efficiency measures for operations, and implemented the remote monitoring of the plant operation and the distribution network on a 24/7 basis through centralized video links. This has resulted in higher efficiency and reduced costs.

The Company also improved the sanitation equipment to reduce chlorine use. This achievement has resulted in higher safety, lower maintenance requirements and better work conditions, thus ensuring smoother operations.

The Company has established energy and chemical consumption levels as key performance targets for staff throughout the various processes of the operations. Monthly competitions are organized for work teams and extra incentive bonus is paid in accordance with the competition results at the end of year.

The following tables show the results of energy efficiency results achieved by Beitang Plant and Xinha Plant in FY2021 respectively compared to FY2020:

Year	Water Supplied (ten thousand/m ³)	Electricity Used (kw.h)	Energy Consumption (kw.h/1000 m ³)
2020	7,870,478	1,101,482.6	139.95
2021	4,531,434	691,086	152.51

Chart 2: Beitang Plant Electricity Consumption in FY2020 and FY2021

Xinhe plant has commenced its full commercial operation in FY2020. It has set a remarkable record in FY2021 as shown below:

Process	Water Supplied(m ³)	Electricity Used (kw.h)	Energy Consumption (kw.h/1000 m ³)
Treatment	24,516,000	2,335,347	95.26
Reclaimed Water	12,616,000	4,939,582	391.53

Chart 3: Xinhe Plant Electricity Consumption in FY2021

Chemical Consumption and Environment Impact

The raw water from reservoirs and discharged water from sewage plants are main sources of raw materials for our water treatment plants. A number of chemicals are used in the process as purifying agents and sanitizing agents.

The table below shows the current levels of chemical consumption in our Beitang Plant:

Category	Names	Use per Unit (kg/1000 m ³) in FY2021	Use per Unit (kg/1000 m ³) in FY2020	Decrease (%)
Purifying Agent	Poly Aluminum Chloride	25.37	26.77	5.23
Sanitizer	Sodium hypochlorite	64.56	58.41	(10.53)

Chart 4: Current Levels of Chemical Consumption, Beitang Plant

Compared with FY2020, Xinhe has seen higher consumption of chemicals in the water treatment process and the reclaimed water process. This is due to the worsening quality of source water. The table below shows the data:

Reclaimed Water delivered in 2021 (ton)	Chemicals	Use per Unit (kg/1000 m ³) in 2021	Use per Unit (kg/1000 m ³) in 2020	Increase (%)
10,654,464	Anti-sludging agent	2.67	1.43	86.7
	Reducing agent	4.03	2.13	89.2
	Sodium hypochlorite	113.95	94.27	20.88
	Sodium hydroxide	5.05	1.38	265.94

Chart 5: Summary of chemical consumption in Xinhe reclaimed water

Xinhe water treatment delivered in 2021 (ton)	Chemicals	Use per Unit	Use per Unit	Increase (%)
		(kg/1000 m ³) in 2021	(kg/1000 m ³) in 2020	
22,258,375	Sodium acetate	155.37	139.58	11.31
	Flocculating agent	60.19	60.85	8.77
	Reducing agent	49.19	31.48	56.25
	Coagulant aids (anion)	1.08	0.68	58.82
	Coagulant aids (kation)	0.24	0.17	41.18

Chart 6: Summary of chemical consumption in Xinhe water treatment

Improving Environment

The commercial operation of Xinhe allows the Company to use more reclaimed water and thus to reduce the use of raw water. This transition contributes to the replenishing of ground water in Tianjin area, a part of North China Basin suffering from long term ground water deficits.

Since the trial and commercial operation of Xinhe and up to the end of 2021, by using reclaimed water from Xinhe, the Company has reduced the consumption of natural raw water by 27.72 million tons, contributing greatly to the replenishing ground water in Tianjin area.

4. Human Resource

CIHL (Tianjin) Water has 73 employees at the end of 2021. All have signed employment contracts in accordance to PRC Labor Laws.

Recruitment and Promotion

The employees are fully protected by the PRC Labor Laws. The Company seeks applicants through the open labor market and employs a merit based recruitment system. On-job training is provided to employees and staffs are offered long term career development paths.

Salaries and Benefit

All employees are covered by the mandatory social security insurance and state pension scheme (“五险一金”). Employees are also provided with subsidies in transportation, communication subsidies, paid annual leave as well needs-based financial aids.

The following tables list further information of the age profile of the Company's employees as at the end of FY2021:

Age Group		Numbers of Employees	Percentage
Male	30 and below	11	15%
	30< Age <=40	19	26%
	40< Age <=50	14	19%
	Above 50	8	11%
Female	30 and below	7	10%
	30< Age <=40	8	11%
	40< Age <=50	4	5%
	Above 50	2	3%

Chart 7: Employee Age Structure

Corporate Culture

The Company has established a corporate culture which is focused on humanity, practicality, and a sound management system.

The Company promotes the corporate culture through all forms of corporate activities. There is an Employees Guidebook which provides guidance on all aspects of operations. Staff and management are required to comply with all rules set out in the guide book.

The Company highlights company logo and other identification tools in the office and other business environment and holds corporate events to promote corporate culture and staff bonding on a regular basis.



Chart 8: Honorable mention

5. Health and Safety

Health

2021 has seen the continued spread of the corona virus pandemic. The Company has observed all advice and regulations during the year, provided the employees with necessary personal protection equipment and other equipment, such thermo-temperature detectors, to combat the virus. The Company assists the employees to have access to virus infection tests and vaccines. The Company has achieved 100% vaccination as well as boost shots for employees in 2021, in conjunction with the community vaccine program. The Company has reported no infections among its employees.

As part of employee welfare benefits, the Company provides employees with free annual health checks.



Chart 8: Organize employees to be vaccinated against COVID-19

Safety

The Company has set up a safety operation system and put in place measures for enforcement. For pipeline network maintenance, the Company adopts regular patrols, together with a centralized video monitoring system. In the water plants, proper fences are set up around the water pools and life vessels placed inside the pools. There are warnings systems in the plants to highlight various risks. When entering work space, each work team must comprise at least two members walking together. Wearing of life jackets and reporting to central monitoring office in and out of work space are standard compulsory procedures.

In the past three years, the Company has recorded no incidents which resulted in death or injury to its workers.

The Company has also established relevant model codes for safe operations and protection measures. Stringent inspection rules have been set up for network monitoring and maintenance. For example, security surveillance camera system with alarms has been installed to cover all areas in our water plants. Our protection facilities include protection bars over precipitation pools advection pool, lifebuoys in designated places, water level alarm, alarm in chlorine room, and safety goggles. When working at precipitation pools, all staff is required to notify the central control room before entering the room and live monitoring is activated during the entire process from the central control room. Staff must work in pairs and wear safety jackets in that room. All new joiners must pass a swimming

test and other safety tests. We have adopted a practicable emergency management plan. The Company emphasizes on strict compliance in model code for safety operations with adequate protection measure and regular maintenance and repair to our facilities to ensure safety.

Our philosophy has always been “Safety in Production” when it comes to production. We are active in adopting all relevant rules and guidelines from our supervisory bodies, especially the “Notice on Commencing Deep Safety Operation Inspection” set by the Water Authority and Safety Committee of Binhai New District. We have established a safety operation team and a network safety operation team respectively headed by our Vice General Manager and internal supervisory department. A rewards system has also been established.



Chart 9: Safety work conference and

Training and Development

The Company trains new employees before deploying them to their jobs. The training covers skills, work environment, process, as well as corporate culture. The purpose is to allow new employees to team up quickly with experienced employees. In 2021, the Company arranged special training program for the our new operating subsidiary, Tianjin Lingang Water Supply Company Ltd.

On-job and continuous training involves training in the area of specialized skills, fire-fighting, and specialized technology. We also provide work related training courses, including fire drills, safety knowledge, technical skills, etc., to improve our staff’s operational skills and professional quality.

Work Environment

The Company endeavors to provide all workers with clean and healthy work environment that meets today’s standard.

6. Customer Service and Community

In April 2018, The Company opened a customer service centre in Tianqi International Centre in Xianglongwan Business District to provide comprehensive customer services on site.

Customers can now make payments via ATMs at 8 branches of the Bank of China 24 hours a day, as well as through payment services of Wechat Pay and AliPay..

The Company maintains a professional after-sales service and maintenance team who sees the needs of our customers. In 2021, our customer call centre handles a total of 34,473 services requests from and to our customers, including 14,467 calls from customers, 957 Wechat messages from customers and 1,865 calls to customers. In a total of 410 customer satisfaction survey, the Company achieved 100% satisfactory rating.

The Binhai New District is undergoing rapid development and construction. We anticipate that the demand of fresh water for social economic and environmental use will increase rapidly as a result. Scarcity in fresh water in the Binhai New District may emerge over time. The Company will provide quality and efficient service with a constant focus on rigorous management and stable production and an aim of building a water-conservation aware community in the area that we operate in.

7. Impact of Covid-19

The outbreak of Covid-19 took place from Wuhan, Hubei Province. Its impact on the Company was only felt around the Chinese New Year in late January 2020. Throughout 2020 and 2021, the Company has maintained a continuous supply of water to customers. Water usage has declined in 2021 due to slower pace of activities of our customers, resulting from the shutdown of almost the whole municipality of Tianjin in the last two months of 2021. The Company complies with all government regulations for the utility industry. After receiving government approval in April 2021, the Company has maintained the supply of water throughout 2021, but faced some occasional suspensions of the engineering and construction work throughout 2021. The operation of engineering and construction and the accommodations of workers are now subject to strict hygienic and social distancing requirements. There has been no infection involving our employees and their families.
