

Company Initiation

Beijing Enterprises Urban Resources Group Ltd.

Rating **OUTPERFORM**

18 June 2020

Asset-light business with visible profitability and healthy financial position

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We like Beijing Enterprises Urban Resources “BEUR” because: 1) it focuses on China environmental hygiene service and hazardous waste treatment sectors with huge market potential; 2) it has strong business network from its parent company, BEW, which facilitates BEUR to win more projects nationally; 3) it is one of the major players in both environmental hygiene service and hazardous waste treatment industry; and 4) it operates under asset-light business model with stronger profitability and financial strength compared with its peers. Current valuation looks attractive at 11x 2020 P/E, which should deserve a premium to peers on the back of its rapid industry growth and higher profitability in environmental hygiene and hazardous waste treatment business. We initiate coverage on BEUR with OUTPERFORM rating and TP of HKD 1.53, which represents 2020E P/E of 14x and P/B of 1.9x, with potential upside of 22%.

Sector **China Environmental**

Key Data

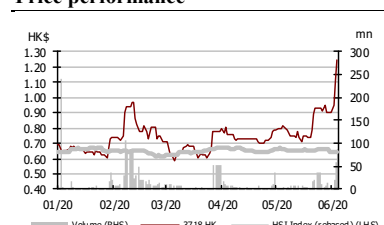
Ticker	3718.HK
Price (17 June)	HKD 1.25
Target price	HKD 1.53
Upside	22%

52W High	HKD 1.26
52W Low	HKD 0.56
Mkt. Cap. (HKD mn)	4,500
Mkt. Cap. (USD mn)	581
Total Issued Shares (mn)	3,600
Avg. 3mths t/o (HKD mn)	7

Shareholdings Structure

Beijing Enterprises Water Group	28.0%
Genius Link Utilities	24.8%
HNW Investment	6.0%
Glowing Trend	5.7%
Company Directors	12.3%
Free float	23.2%

Price performance



%	1m	3m	6m
3718.HK	56.3	101.6	n.a.
HSI	2.9	5.2	(12.1)

Huge market potential in environmental hygiene service and hazardous waste treatment industries. The environmental hygiene service and hazardous waste treatment industries in the PRC are in the fast-growing period and have huge growth potential - We expect the market size of China’s environmental hygiene services sector will grow from RMB 301.3bn in 2019E to RMB 516.6bn in 2023E, which represents a 14.4% CAGR during the 4-year period and the proportion of enterprise’s market share is expected to grow from 47% to 71% in the corresponding period on the back of the growing demand and govt’s intention to outsource the services. As for hazardous waste treatment, the actual treatment rate in China is only ~67%. With govt. policies on enhancing the monitoring system and penalty mechanism, the illegal disposal volume will be reduced and open more market opportunities for treatment operators.

Leverage on the strong brand and well-developed business network of BEW. Beijing Enterprises Urban Resources “BEUR” is a major beneficiary of the expanding environmental sanitation and hazardous waste treatment market – BEUR ranked 4th in environmental hygiene sector (in terms of industry revenue and expenditure) and 6th in hazardous waste treatment sector (in terms of operating capacity) as of Dec 31, 2018. We believe it is well-positioned in the industries mainly due to the strong brand and well-developed business network of BEUR’s parent company, BEW, which will help BEUR to win more projects nationally in the coming years.

Better profitability and financial strength compared with peers. Notwithstanding the rapid growth of BEUR’s environmental hygiene business and hazardous waste with 3-year CAGR of 30% and 38% respectively, its net gearing ratio is expected to remain at 8-22% in 2020E-2022E, which is relatively low compared with its peers. Its healthy financial position also implies BEUR has no need of equity financing over the medium term. In addition, its ROE and ROA are both at better level than other environmental players on the back of its asset light business model of environmental hygiene service sector and higher return of hazardous waste treatment business.

Initiate with OUTPERFORM and TP of HKD 1.53. We initiate coverage on BEUR with OUTPERFORM rating and TP of HKD 1.53, which is based on our SOTP valuation with 15x 2020E P/E for its environmental hygiene services segment and 10x 2020E P/E for other segments. Our TP is equivalent to 2020E P/E of 14x and P/B of 1.9x, with potential upside of 22% from last closing price.

Investment risks include: 1) Contract renewal risk; 2) Decrease in utilization rate; 3) Hazardous waste treatment gross margin reduction; 4) Delayed in environmental decommission fees receivable payment; and 5) Interest rate risk.

Valuation Statistics

YE 31 Dec	Turnover HKD mn	Net profit HKD mn	EPS HKD	EPS chg %	PER x	EV/ EBITDA x	PBR x	ROE %	Net debt/ equity %
2018A	1,863	430	15.9	n.a.	7.8	12.2	2.2	37.1	28.9
2019A	2,711	281	10.4	-34.6%	12.0	7.3	1.9	16.7	15.0
2020E	3,879	405	11.2	7.9%	11.1	5.0	1.6	17.4	8.3
2021E	4,909	562	15.6	38.8%	8.0	3.7	1.3	18.0	19.5
2022E	6,013	703	19.5	25.2%	6.4	2.9	1.1	18.7	22.2

Source: Company, ICBCI estimates

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Investment Thesis

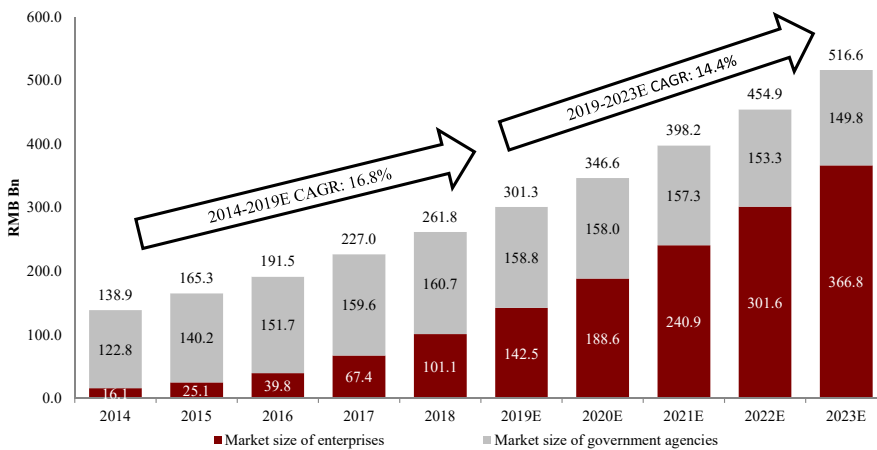
Huge potential in China’s environmental hygiene services and hazardous waste treatment industries

- Environmental hygiene services market continues to expand driven by huge market potential and govt. support

According to Frost & Sullivan, the size of China’s environmental hygiene service market grew at 5-yr CAGR of 16.8% from RMB 138.9bn in 2014 to RMB 301.3bn in 2019E (see exhibit 1). The uptrend is likely to continue in the future due to:

- 1) **Growing market demands of different sub-services** – Environmental hygiene services primarily cover comprehensive road cleaning, waste management (garbage sorting, collection and transportation), public toilet management etc. (see exhibit 2). As a result of urbanization, growing population and economic development, the area of road and domestic waste production has been growing constantly. We expect the uptrend to continue which would directly drive up the demand for different hygiene services in coming years. According to Frost & Sullivan, the market size of China’s environmental hygiene services sector will grow at 4-yr CAGR of 14.4% from RMB 301.3bn in 2019E to RMB 516.6bn in 2023E (see exhibit 1).

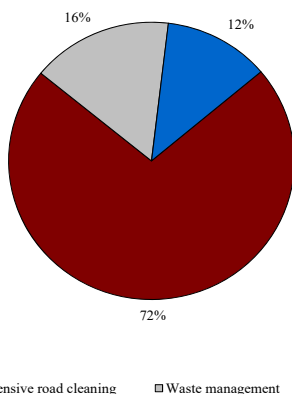
Exhibit 1: China’s market size of environmental hygiene services in 2014-2023E*



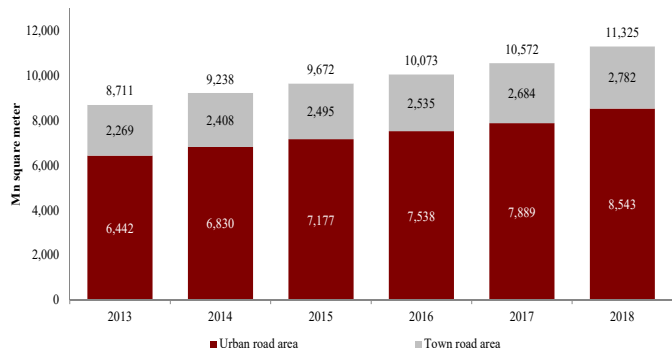
Sources: Frost & Sullivan, ICBCI

*The market size of environmental hygiene service represents the sum of the expenditure of government agencies on environmental hygiene services and the revenue of enterprises from providing environmental hygiene services.

Exhibit 2: Breakdown of China environmental hygiene service market by types of services in 2019 **Exhibit 3: China’s urban and town road area in 2010-2018**

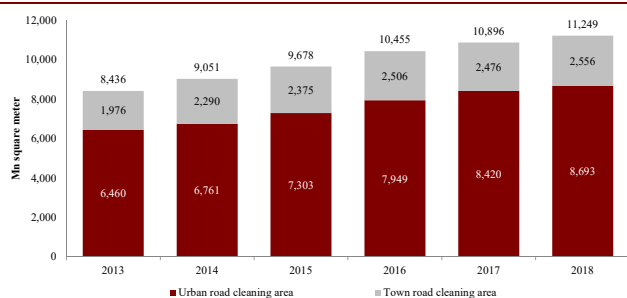


Source: Qianzhan Industry Institute, ICBCI



Source: MOHURD, ICBCI

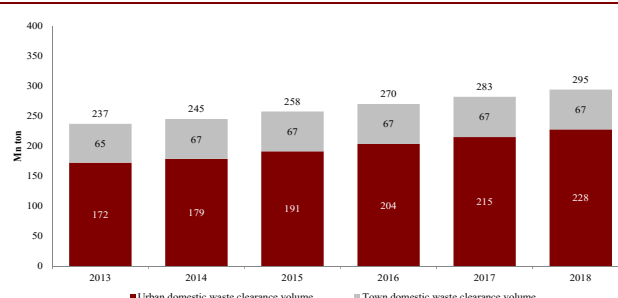
Exhibit 4: China's urban and town road cleaning and maintained area in 2010-2018*



Source: MOHURD, ICBCI

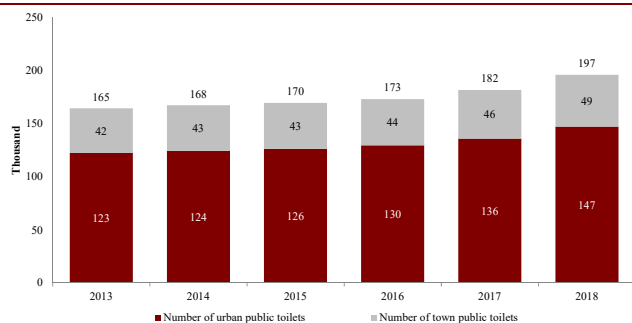
*Some cleaning and maintained area number higher than the road area number due to statistical difference.

Exhibit 5: China's urban and town domestic waste clearance volume in 2010-2018



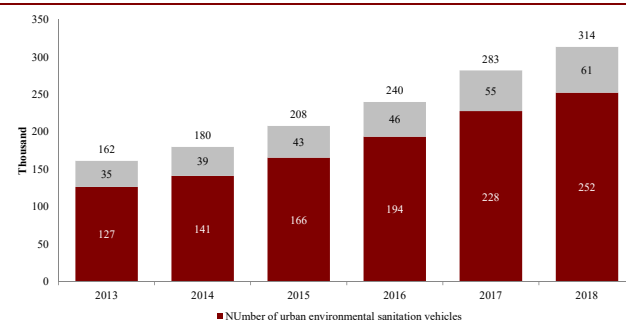
Source: MOHURD, ICBCI

Exhibit 6: Number of China's urban and town public toilets in 2010-2018



Source: MOHURD, ICBCI

Exhibit 7: Number of China's urban and town environmental sanitation vehicles in 2010-2018



Source: MOHURD, ICBCI

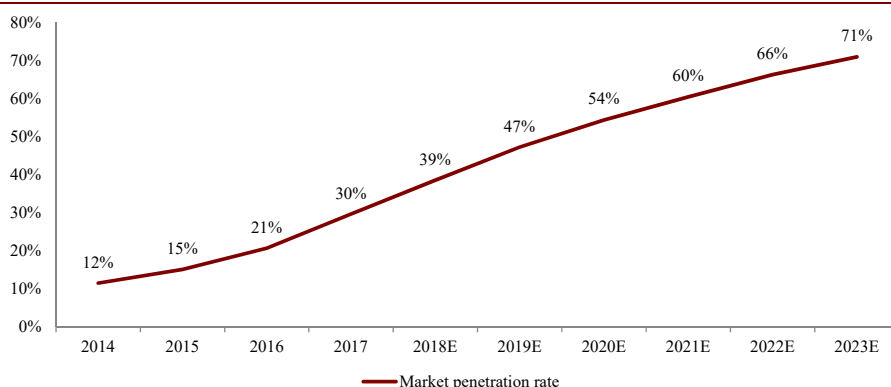
2) **Govt.'s intention to outsource the environmental hygiene services** – PRC govt. issued a series of policies on environmental hygiene services, which encouraged the services to be outsourced to experienced 3rd parties (see exhibit 8). According to Frost & Sullivan, enterprise's market size in China's environmental hygiene services sector is expected to grow at 4-yr CAGR of 26.7% from RMB 142.5bn in 2019E to RMB 366.8bn in 2023E, with the corresponding market penetration rate rising from 47.2% to 71.0% (see exhibit 1 & 9). The increasing marketization indicates there will be more opportunities for enterprises to enter environmental hygiene services market in the medium term.

Exhibit 8: Policy summaries related to environmental sanitation sector

Date	Policy topics	Key points
2002/12	Opinions on accelerating the marketization process of municipal public utilities	Open the municipal public utility market for investment, and establish government purchase mechanism to promote the development of urban public utilities industry
2006/01	Notice on the Construction of Urban and Rural Environmental Sanitation System in China	Build market-oriented mechanism for environmental sanitation industry. Government purchase and public bidding will be used as the main method for the road cleaning, garbage collection and transportation projects
2013/09	The Guiding Opinions on Government Purchase of Public Service from Social Forces	Government purchase service mechanism from social forces will be established to accelerate public service market development by 2020
2015/01	Regulations for the Implementation of the Government Purchase	Propose management for government purchase mechanism
2015/11	The Notice of Guidance on Expanding Application of PPP Model in Public Service	Forming effective mechanism to promote the development of the government and social capital cooperation model. Focus on removing the risks of local government debt, actively introduce social capital to participate projects, and strive to reduce local government debt
2016/09	The Opinions of the Departments including the Ministry of Housing and Urban-Rural Development on Further Encouraging and Supporting Private Capital in Entering into the Urban Water Supply, Gas, Heating Supply, Sewage and Waste Disposal Industries	Improve the charging mechanism of garbage disposal, in accordance with the principles of compensating for garbage collection, transportation, disposal costs and reasonable profitability. Strengthen the collection work and increase the collection rate. Encourage and guide private capital to enter municipal utilities market
2017/03	Notice on implementation plan of the domestic waste classification system	Regulations and standard mechanism for garbage classification segment will be established by 2020. The domestic garbage recycling rate will reach more than 35% by 2020
2017/11	The Notice on Deeply Advancing the Public-Private Partnership in Public Service Fields	Encourage private capital to participate in the construction of projects to promote the development of the government and social capital cooperation (PPP) model
2019/06	Notice on the comprehensive development of domestic waste sorting work in prefecture-level cities	46 key cities will basically complete domestic waste classification and treatment mechanism by 2020. Other prefecture-level cities have achieved full coverage of domestic waste classification in public institutions, and at least one street has to build a demonstration zone for domestic waste classification by 2020
2020/05	Law of the People's Republic of China on the Prevention and Control of Solid Waste Pollution	Stricter monitoring and penalty system of hazardous waste treatment, the set-up of domestic waste sorting and charging mechanism and construction waste sorting and resources utilization mechanism

Sources: MOHURD, State Council, ICBCI

Exhibit 9: China's market penetration rate of environmental hygiene services in 2014-2023E



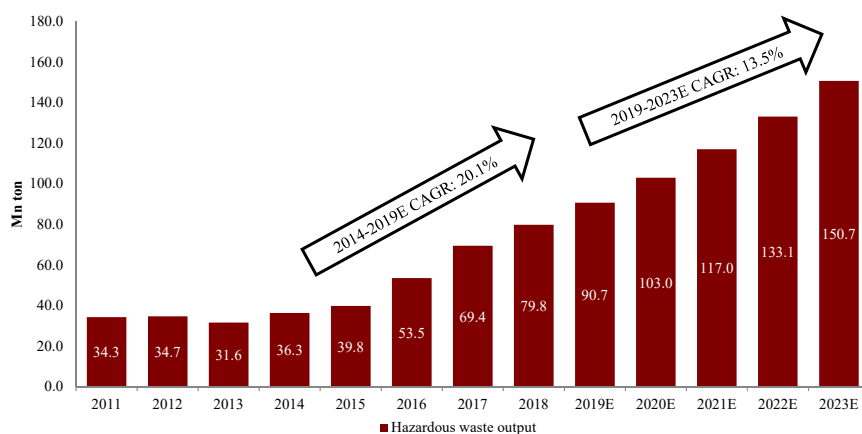
Sources: Frost & Sullivan, ICBCI

- 3) Govt.'s policies on re-emphasizing the importance of environmental hygiene service after the COVID-19 outbreak** – PRC govt. issued the “Notice on further improving urban environmental sanitation” (《关于进一步做好城市环境卫生工作的通知》) after the COVID-19 outbreak period, which re-emphasized on enhancing the effectiveness and efficiency of environmental sanitation work, including comprehensive road cleaning, garbage sorting, collection and transportation and public toilet management. In addition, the National People's Congress passed the revised version of the “Law of the People's Republic of China on the Prevention and Control of Solid Waste Pollution”, which also required local govts to set up domestic waste sorting mechanism, e.g. sorting, collection, transportation and disposal system. The development of sorting collection and transportation work would also help expanding the sanitation equipment production and environmental hygiene service sector as more sorting related work indicates higher demand for sorting vehicle and sorting services.
- 4) Revival of “street vendor economy”** – Premier of PRC emphasized the revival of “street vendor economy” in 2020 two sessions, after which most local govts followed and encouraged the development of “street vendor economy”. It could lead to higher demand on sanitation related work, e.g. road and waste cleaning.

■ Actual shortage of hazardous waste treatment capacity could be more serious than reported in China

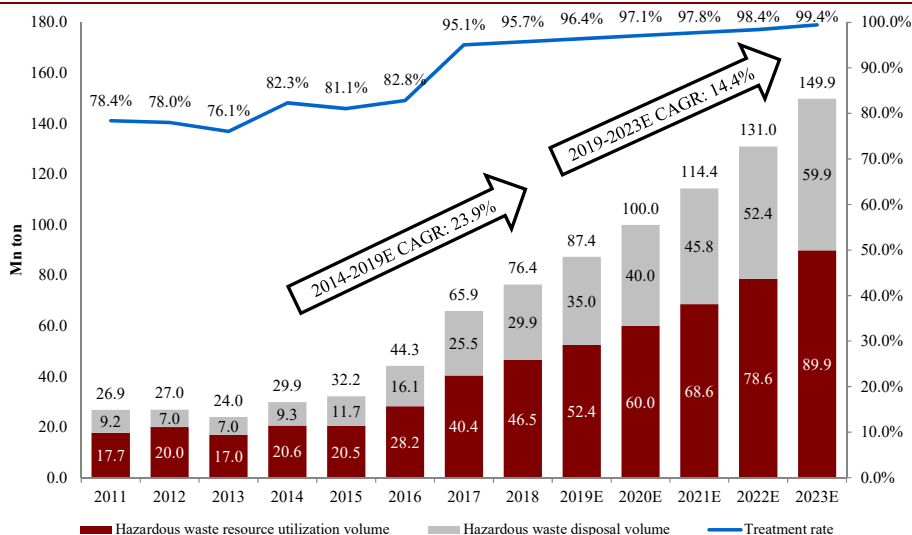
China market is currently short of hazardous treatment capacity resulting in smaller treatment volume of hazardous waste as compared to output volume in China. According to Frost & Sullivan, China hazardous waste production volume was 90.7mn tonnes, with the corresponding treatment rate of 96.4% in 2019E. The hazardous waste treatment rate is expected to reach 99.4% in 2023E with the total treatment volume (including resources utilization and disposal) expanding at a CAGR of 14.4% from 87.4mn tonnes in 2019E to 149.9mn tonnes in 2023E (see exhibit 10 & 11).

Exhibit 10: Hazardous waste production volume in China in 2011-2023E



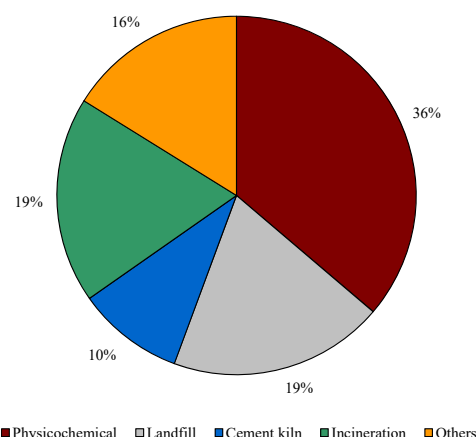
Sources: NBS, Frost & Sullivan, ICBCI

Exhibit 11: Hazardous waste treatment volume and treatment rate in China from 2011 to 2023E



Sources: NBS, Frost & Sullivan, ICBCI

Exhibit 12: Distribution of hazardous waste disposal method by third parties in China in 2017



Sources: ZhiYan consulting, ICBCI

While the reported treatment ratio is high, the actual production volume of hazardous waste in China could be far higher than the reported level considering a large volume of the waste was illegally disposed. According to ZhiYan Consulting, assuming hazardous waste volume accounts for 3% of general industrial solid waste volume, the actual hazardous waste volume in China could be 100mn tonnes in 2017, which is ~1.4x more than the reported volume in 2017. Assuming 1.4x of the reported volume, the actual hazardous waste volume could be over 130mn tonnes in 2019E and the actual treatment rate could be only 67.2% instead of 96.4%. This implies huge market potential for hazardous waste treatment operators.

■ **Stricter monitoring and penalty system calls for higher treatment capacity**

The State Council issued the “Opinions on comprehensively strengthening the safe production of hazardous chemicals” (《关于全面加强危险化学品安全生产工作的意见》) and passed the revised version of the “Law of the People’s Republic of China on the Prevention and Control of Solid Waste Pollution” in 1H20, which emphasized the set-up of monitoring system and the revised penalty system as well as the detailed plan of facilities construction (see exhibit 13). We believe the policies would help reduce the volume of illegal hazardous waste disposal on the back of the rising illegal disposal cost and stricter monitoring system, and open more market opportunities for treatment operators. The main markets will be the provinces with high hazardous waste production and treatment rate, such as Shandong, Jiangsu, Zhejiang and Guangdong, and the provinces with high hazardous waste production and low treatment rate, e.g. Yunnan, Gansu, Qinghai and Xinjiang.

Exhibit 13: The major changes in penalty system of the “Law of the People's Republic of China on the Prevention and Control of Solid Waste Pollution (2020)”

Illegal Practice	Current Penalty	Revised penalty
Failure to set up hazardous waste identification mark	RMB 10,000-100,000	RMB 100,000-1,000,000
Failure to develop hazardous waste management plan or declare hazardous waste related information in accordance with national regulations	RMB 10,000-100,000	RMB 100,000-1,000,000
Illegal discharge, dumping, and disposal of hazardous waste	-	3-5 times of treatment fee as penalty, minimum penalty: RMB 200,000
Providing or entrusting hazardous waste to a treatment unit without legal business license of hazardous waste treatment	RMB 20,000-200,000	3-5 times of treatment fee as penalty, minimum penalty: RMB 200,000
Failure in fill out the hazardous waste transfer form in accordance with national regulations or transfer hazardous waste without approval	RMB 20,000-200,000	RMB 100,000-1,000,000
Failure in follow the relevant provisions of the national environmental management to store, utilize and dispose of solid waste or mix hazardous waste into non-hazardous waste for storage	RMB 10,000-100,000	RMB 100,000-1,000,000
Collecting, storing, transporting and disposing of hazardous waste without reasonable treatment	RMB 10,000-100,000	RMB 100,000-1,000,000
Hazardous waste carrying on the vehicles with passengers	RMB 10,000-100,000	RMB 100,000-1,000,000
Utilizing hazardous waste collection, storage, transportation or disposal sites, facilities or equipment, for other purposes without proper treatment	RMB 10,000-100,000	RMB 100,000-1,000,000
Failure in take appropriate precautions and causing leakage of hazardous waste	RMB 10,000-100,000	3-5 times of treatment fee as penalty, minimum penalty: RMB 200,000
Discarding hazardous waste during transportation process	RMB 10,000-100,000	3-5 times of treatment fee as penalty, minimum penalty: RMB 200,000
Failure in setting up preventive mechanism and emergency plans for hazardous waste accidents	RMB 10,000-100,000	RMB 100,000-1,000,000
Failure in setting up hazardous waste management plan or recording information faithfully in accordance with relevant state regulations	-	RMB 100,000-1,000,000
Failure in obtaining permits and engage in hazardous waste collection, storage, transportation and disposal	Confiscated illegal income, and maximum penalty: 3 times of the illegal income	RMB 1,000,000-5,000,000, Penalty to the responsible person: RMB 100,000-1,000,000
Failure in managing the hazardous waste collection, storage, transportation and disposal in accordance with the permits	Confiscated illegal income, and maximum penalty: 3 times of the illegal income	RMB 500,000-2,000,000, Penalty to the responsible person: RMB 50,000-500,000

Source: MOEE, ICBCI

■ High entry barrier to the industry

While the hazardous waste treatment industry still has much room for growth in view of the treatment capacity shortage and govt. monitoring in China, we do not expect to see a large number of players entering the market due to demanding entry requirements, some of which are described as follows:

- **Huge initial capital investment** – Hazardous waste treatment projects require huge investment amount. For instance, a landfill disposal facility with total capacity of 300,000 tonnes typically requires an initial investment of approximately RMB 100mn, according to Frost & Sullivan. In addition, the construction cycle for hazardous waste treatment projects is typically long, ranging from 3-5 years. As a result of the high initial capital requirements, industry participants need to have substantial capital and strong financing capabilities to enter the market.
- **Strong technical capabilities with advanced treatment technology** - According to Frost & Sullivan, there are many hazardous waste treatment facilities in China which lack advanced technology and face instability of equipment, resulting in under-utilization problems. In addition, poor quality equipment and treatment processes are likely to create pollution. As a result, companies with advanced technology will likely be more welcomed by the market and operators without advanced technology may find it harder to survive.
- **High requirements to obtain permit**- Only companies that have obtained the hazardous waste treatment permit and prepared hazardous waste management plan in accordance with the national environmental management are qualified to provide hazardous waste treatment services. According to Frost & Sullivan, in light of the risk and the importance of the hazardous waste treatment business, the PRC government is more likely to grant such permits to companies that have successful experience and expertise in hazardous waste treatment, e.g. enterprises generally are able to obtain permit with three or more technicians having more than three years' industry experience. In addition, enterprises have to obtain the permit from environmental protection regulatory authorities of local govt. Therefore, close

relationship with the local government, sound track records and project execution capabilities are crucial for hazardous waste treatment companies. With the rapid development of the industry and the existence of a number of established companies, new participants may face a high barrier to obtain the hazardous waste treatment permit.

BEUR - A major player of the fast-growing environmental protection industry

■ Leverage on the strong brand and well-developed business network of BEW

We believe BEUR is a major beneficiary of the expanding environmental sanitation and hazardous waste treatment market. State-owned enterprises revenue in environmental sanitation sector was RMB 22.9bn in 2018, representing 22.6% of enterprise's market share, which will increase at a CAGR of 33.3% to RMB 96.2bn in 2023E (vs. non-state owned enterprises CAGR in 2018-2023E: 28.2%) with market penetration rate of 26.2% in enterprise's market, according to Frost & Sullivan. This shows the competitive advantage of having SOE background in bidding environmental sanitation projects.

According to Frost & Sullivan, environmental hygiene services sector remains fragmented with the largest 5 players accounting for only 4.7% market share in China, in terms of industry revenue and expenditure in 2018. BEUR ranked 4th with market share of 1.6% and 0.6% in enterprise's market and whole market (incl. enterprise and gov. agencies) respectively in 2018 (see exhibit 14). BEUR's parent company, BEW, is the largest sewage treatment operator in China, with projects throughout China, strong reputation and brand recognition. Leveraging on the strong brand and well-developed business network of BEW and the trend of state-owned enterprises gaining more market share, we believe BEUR will continue to win more projects nationally.

As for hazardous waste treatment industry, this sector is also fragmented with the largest 10 players accounting for only 9.7% market share in China, in terms of hazardous waste treatment operating capacity in 2018. BEUR ranked 6th with market share of 0.7% (see exhibit 18) and is capable of safely treating 38 out of 46 categories of hazardous waste listed in the National Catalog of Hazardous Waste. It is also worth noting that BEUR is one of the leading market participants in Shandong and Qinghai, ranked 4th and 1st with market share of 7.9% and 58.1% in terms of operating capacity in 2018 (see exhibit 20-21). These two provinces are the main hazardous waste treatment market with high production volume. We expect BEUR's designed capacity to continue its growth with strong support from its parent company, especially in Shandong and Qinghai, and therefore will remain a major operator in the market in the future.

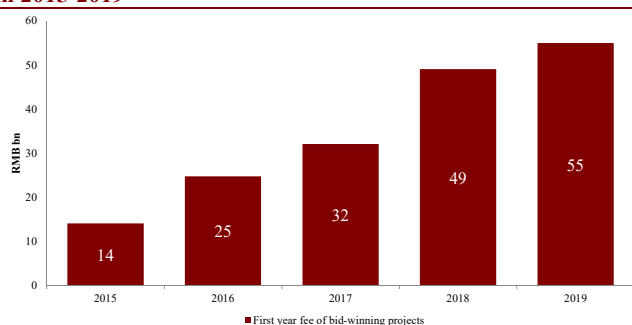
Exhibit 14: BEUR ranked 4th in the environmental sanitation industry in China in 2018 in terms of industry revenue and expenditure

Company Name	Revenue (RMB bn)	Enterprise Market Share (%)	Whole Market Share (%)*
Beijing Environmental Sanitation Engineering Group Co. Ltd.	3.9	3.9	1.5
Tus Environmental Technology Development Co., Ltd	3.1	3.1	1.2
EIT Environmental Development Group Co., Ltd.	2.0	2.0	0.8
Beijing Enterprises Urban Resources Group Ltd.	1.6	1.6	0.6
Qiao Yin Environmental Protection	1.5	1.5	0.6
Others	89.0	87.9	95.3
Total	101.1	100.00	100.00

Sources: Frost & Sullivan, ICBCI

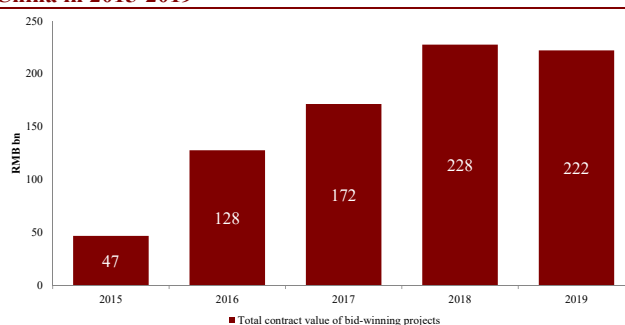
*Total market share refer to the market share of both enterprise sector and gov. agencies.

Exhibit 15: First year fee of new bid-winning projects in China in 2015-2019



Source: Company data, ICBCI

Exhibit 16: Contract value of new bid-winning projects in China in 2015-2019



Source: Company data, ICBCI

Exhibit 17: BEUR ranked 6th in the environmental sanitation industry in China in 2019 in terms of the new bid-winning contract's annual fee

Company	New contract's annual fee amount (RMB bn)	Market Share (%)
Beijing Environmental Sanitation Engineering Group Co. Ltd.	2.6	4.7
Qiao Yin Environmental Protection	1.5	2.8
EIT Environmental Development Group Co., Ltd.	1.5	2.6
Fujian Longma Environmental Sanitation Equipment Co., Ltd	1.2	2.2
Infore Environment Technology Group	0.9	1.6
Beijing Enterprises Urban Resources Group Ltd.	0.8	1.4
Zhonghuan Jie Environment Co., Ltd.	0.5	1.0
Yucheng Environmental	0.5	0.9
Tus Environmental Technology Development Co., Ltd	0.5	0.9
Jiabao Yuanlin	0.5	0.8
Others	44.6	81.1
Total	55	100.0

Sources: ZhiYan consulting, Company data, ICBCI

Exhibit 18: BEUR ranked 6th in the hazardous waste treatment industry in 2018 in terms of operating capacity in China

Company	Operating capacity (thousand tons/year)	Market Share (%)
Dongjiang Environmental Company Limited	1101.5	3.0
Veolia Environmental Group	399.7	1.1
Agile Group Holdings Limited	396.5	1.1
Shenzhen Hazardous Waste Treatment Station Co., Ltd.	313.1	0.9
Shanghai Chengtou Group Corporation	269.6	0.7
Beijing Enterprises Urban Resources Group Ltd.	253.1	0.7
Suez Environnement Group	235.0	0.6
Hubei Zhongyou Environmental Protection Group Co.,	204.8	0.6
China Everbright Greentech Ltd.	191.0	0.5
CT Environmental Group Limited	182.5	0.5
Others	32825.5	90.3
Total	36372.3	100.0

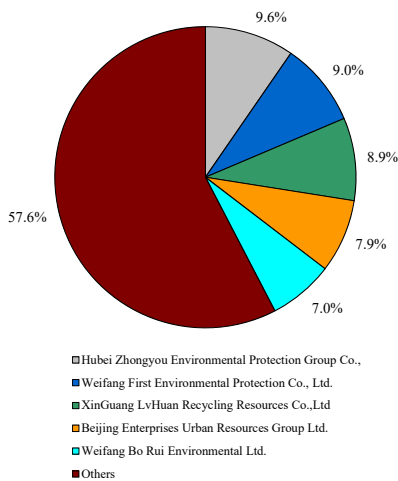
Sources: Frost & Sullivan, ICBCI

Exhibit 19: BEUR ranked 9th in the hazardous waste treatment industry in 2018 in terms of treatment volume in China

Company	Treatment volume (thousand tons)	Market Share (%)
Dongjiang Environmental Company Limited	574.4	4.4
Veolia Environmental Group	252.4	1.9
Suez Environnement Group	165.2	1.3
Shenzhen Hazardous Waste Treatment Station Co., Ltd.	151.6	1.2
Shanghai Chengtou Group Corporation	148.3	1.1
Agile Group Holdings Limited	132.8	1.0
China Everbright Greentech Ltd.	127.1	1.0
CT Environmental Group Limited	105.9	0.8
Beijing Enterprises Urban Resources Group Ltd.	80.5	0.6
CEP Environmental Protection Co., Ltd.	77.3	0.6
Others	11349.8	86.1
Total	13165.3	100.0

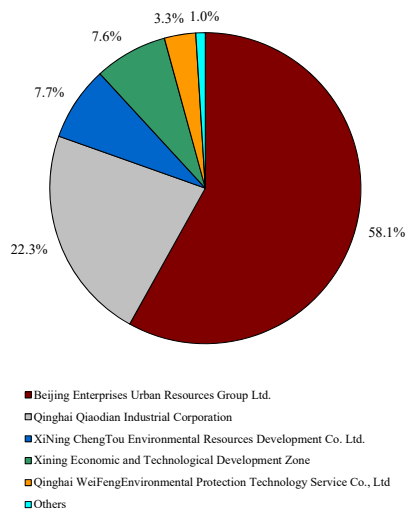
Sources: Frost & Sullivan, ICBCI

Exhibit 20: Market share of participants in Shandong in terms of hazardous waste disposal operating capacity in 2018



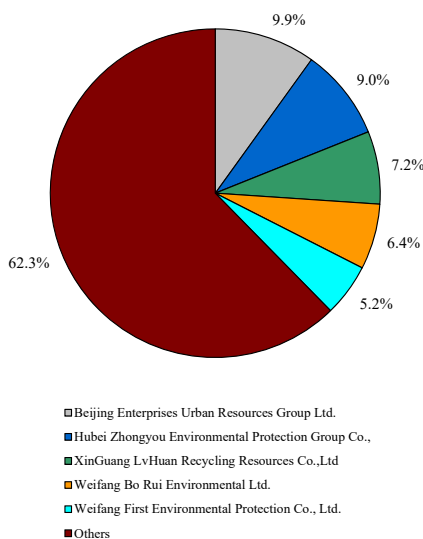
Source: Frost & Sullivan, ICBCI

Exhibit 21: Market share of participants in Qinghai in terms of hazardous waste disposal operating capacity in 2018



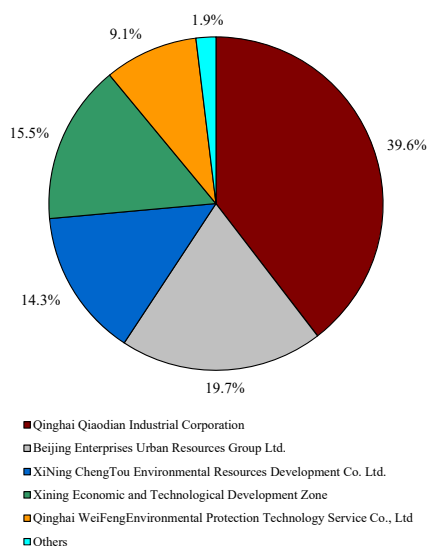
Source: Frost & Sullivan, ICBCI

Exhibit 22: Distribution of industry participant's market share in Shandong in terms of hazardous waste disposal volume in 2018



Source: Frost & Sullivan, ICBCI

Exhibit 23: Distribution of industry participant's market share in Qinghai in terms of hazardous waste disposal volume in 2018



Source: Frost & Sullivan, ICBCI

Financial forecast

We forecast BEUR's net profit will grow at a 3-year CAGR of 36% from HKD 281mn in 2019 to HKD 703mn in 2022E. The increase in net profit is mainly attributable to the rapid growth in environmental hygiene services and hazardous waste treatment segment – we forecast revenue of the two segments will grow at a CAGR of 30% and 38% in 2019-2022E respectively, with more bid-winning environmental hygiene services projects and hazardous waste treatment projects turning into operation.

Our forecast on the company's 2020E-2022E net profit represents +1%/+13%/+6% difference from market consensus. We believe the discrepancy is mainly attributable to different assumptions on administrative costs, bid-winning projects in the coming years and the construction schedule of its hazardous waste treatment projects.

Exhibit 24: ICBCI estimates vs. market consensus

	2020E			2021E			2022E		
	ICBCI forecast	Market consensus	Difference (%)	ICBCI forecast	Market consensus	Difference (%)	ICBCI forecast	Market consensus	Difference (%)
Revenue (HKD mn)	3,879	3,629	7%	4,909	4,504	9%	6,013	6,229	-3%
Gross profit (HKD mn)	1,131	998	13%	1,454	1,267	15%	1,759	1,716	3%
Operating profit (HKD mn)	717	630	14%	984	738	33%	1,221	1,044	17%
Net profit (HKD mn)	405	399	1%	562	497	13%	703	661	6%
EPS (HK cents)	11.2	11.0	2%	15.6	13.7	14%	19.5	18.0	9%

	2020E			2021E			2022E		
	ICBCI forecast	Market consensus	Difference (ppt)	ICBCI forecast	Market consensus	Difference (ppt)	ICBCI forecast	Market consensus	Difference (ppt)
Gross margin (%)	29%	28%	1.7	30%	28%	1.5	29%	28%	1.7
Operating margin (%)	18%	17%	1.1	20%	16%	3.7	20%	17%	3.5
Net margin (%)	10%	11%	-0.6	11%	11%	0.4	12%	11%	1.1
ROE (%)	17%	18%	-1.0	18%	19%	-1.2	19%	22%	-3.7
ROA (%)	8%	7%	1.8	9%	7%	1.7	10%	8%	2.2

Sources: Bloomberg, ICBCI estimates

Our forecasts are based on our major assumptions below:

Exhibit 25: Major assumptions of our forecasts

	2018	2019	2020E	2021E	2022E
Hazardous waste disposal*					
Operating capacity (tonnes per annum)	252,050	370,396	492,684	592,684	672,684
Waste disposal average capacity in operation (tonnes per annum)	206,631	206,912	404,718	576,017	612,684
Hazardous waste collected (ton)	80,486	76,345	133,557	201,606	226,693
Average waste treatment fee (HKD/ton, VAT exclusive)	3,122	3,743	3,600	3,600	3,600
Hazardous waste recycling and reuse					
Operating capacity (tonnes per annum)	250,000	250,000	250,000	500,000	750,000
Recycling and reuse average capacity in operation (tonnes per annum)	204,160	250,000	250,000	325,000	562,500
Hazardous waste collected (ton)	47,548	85,994	82,500	113,750	208,125
Average waste treatment fee (HKD/ton, VAT exclusive)	3,595	2,963	2,900	2,900	2,900
Waste electrical and electronic equipment treatment project					
Operating capacity (products per annum)	2,150,000	2,150,000	2,150,000	2,150,000	2,150,000
Processed number of products	1,257,033	1,468,792	1,548,000	1,612,500	1,677,000
Average price per product (HKD)	71	69	69	69	69
Environmental decommissioning fees income per product (HKD)	70	69	69	69	69

Sources: Company data, ICBCI estimates

* Data in 2018 incl. the disposed project - Ganhe Industrial Park Tailings Storage and Recycling Project with operating capacity of 60,000t/yr.

Revenue

Revenue is expected to grow from HKD 2,711mn in 2019 to HKD 6,013mn in 2022E. BEUR's revenue is mainly derived from 3 segments: i) environmental hygiene services; ii) hazardous waste treatment; and iii) waste electrical and electronic equipment treatment. Environmental hygiene services segment is the largest revenue source of BEUR, accounting for 73% of total revenue in 2019. On the other hand, hazardous waste treatment segment is catching up as most projects in the pipeline will enter their construction stage in coming years. We estimate the proportion of hazardous waste treatment segment revenue in the revenue mix will increase from 20% in 2019 to 24% in 2022E (see exhibit 26).

We forecast BEUR's revenue will grow at a 2019-2022E CAGR of 30%, which will be supported by:

- 30% 2019-2022E CAGR on environmental hygiene services - we expect its annual service fee will increase from RMB 2.3bn in 2019 to RMB 5bn in 2022E supported by projects bid-winning.
- 38% 2019-2022E CAGR on hazardous waste treatment - we expect its total hazardous waste treatment volume will increase from 162kt in 2019 to 435kt in 2022E supported by capacity growth.
- 4% 2019-2022E CAGR on waste electrical and electronic equipment treatment - we expect its processing volume will increase from 1.47mn in 2019 to 1.68mn in 2022E supported by higher utilization.

Exhibit 26: Revenue breakdown by segments

	2018	2019	2020E	2021E	2022E
Revenue (HKD mn)					
Environmental hygiene services	1,264	1,968	2,945	3,631	4,362
Construction services	3	0	0	0	0
Environmental hygiene services	1,261	1,968	2,945	3,631	4,362
Hazardous Waste Treatment	422	540	720	1,056	1,420
Sale of refined chemical and other products	171	255	239	330	604
Hazardous waste treatment services	251	286	481	726	816
Waste electrical and electronic equipment treatment	176	203	214	222	231
Sale of dismantled products	89	101	107	111	116
Environmental decommissioning fees income	88	101	107	111	116
Total	1,863	2,711	3,879	4,909	6,013
% of total revenue					
Environmental hygiene services	67.9%	72.6%	75.9%	74.0%	72.5%
Construction services	0.2%	0.0%	0.0%	0.0%	0.0%
Environmental hygiene services	67.7%	72.6%	75.9%	74.0%	72.5%
Hazardous Waste Treatment	22.7%	19.9%	18.6%	21.5%	23.6%
Sale of refined chemical and other products	9.2%	9.4%	6.2%	6.7%	10.0%
Hazardous waste treatment services	13.5%	10.5%	12.4%	14.8%	13.6%
Waste electrical and electronic equipment treatment	9.5%	7.5%	5.5%	4.5%	3.8%
Sale of dismantled products	4.8%	3.7%	2.7%	2.3%	1.9%
Environmental decommissioning fees income	4.7%	3.7%	2.7%	2.3%	1.9%
Total	100.0%	100.0%	100.0%	100.0%	100.0%

Sources: Company data, ICBCI estimates

COGS & Gross margin

We forecast its gross margin to be stable in 2020E-2022E. BEUR's COGS mainly includes: i) wages and welfare; ii) raw materials expenses; iii) depreciation and amortization; iv) transportation expenses; and v) others, including office & rental expenses and repair & maintenance expenses. While wages and welfare and transportation cost are mainly derived from the environmental hygiene services, material costs are incurred from the collection of waste electrical and electronic equipment and the procurement of hazardous waste recycling business. According to our estimates, wages and welfare makes up ~50% of BEUR's total COGS, which will further decrease on the back of cost control improvement through intelligent equipment use.

We estimate BEUR's blended gross margin will range between 29-30% in 2020E-2022E. The stable gross margin is mainly due to higher gross margin in environmental hygiene services segment with cost control improvement, which would offset with the hazardous waste treatment gross margin reduction due to the keen market competition.

Exhibit 27: Gross profit and gross margin breakdown by segments

	2018	2019	2020E	2021E	2022E
Gross Profit (HKD mn)					
Environmental hygiene services	278	482	736	919	1,112
Hazardous waste treatment business	229	251	341	480	589
Sale of refined chemical and other products	66	87	77	102	181
Hazardous waste disposal services	162	165	264	377	408
Waste electrical and electronic equipment treatment	48	50	53	56	58
Total gross profit	554	783	1,131	1,454	1,759
Gross Profit Margin (%)					
Environmental hygiene services	22%	25%	25%	25%	26%
Hazardous waste treatment business	54%	47%	47%	45%	41%
Sale of refined chemical and other products	39%	34%	32%	31%	30%
Hazardous waste disposal services	65%	58%	55%	52%	50%
Waste electrical and electronic equipment treatment	27%	25%	25%	25%	25%
Blended gross profit margin	30%	29%	29%	30%	29%

Sources: Company data, ICBCI estimates

Other income

Other income mainly includes VAT refund (hazardous waste treatment fee are entitled to 70% VAT refund), govt. grants and others (including interest income and consultancy service income etc.). We estimate its 2020E/2021E/2022E other income to be HKD 85mn/HKD 103mn/HKD 120mn respectively.

Exhibit 28: Other income

	2018 HKD mn	2019 HKD mn	2020E HKD mn	2021E HKD mn	2022E HKD mn
Other income					
VAT refund	20	26	38	46	54
Consultancy service income	11	7	9	10	12
Interest income	7	8	13	15	18
Government grants	5	9	13	15	18
Others	12	10	13	15	18
Total	55	60	85	103	120

Sources: Company data, ICBCI estimates

Capex, interest expenses and net gearing ratio

BEUR's capital expenditure is mainly incurred from the construction of new hazardous waste treatment projects and purchase of PPE, e.g. garbage trucks and sanitation vehicles. Based on BEUR's project pipeline and its construction schedule, we estimate its 2020E/2021E/2022E capex to be HKD 1,341mn/HKD 1,492mn/HKD 1,401mn respectively. Assuming 70% of hazardous waste treatment project's capex will be financed by debts and 5.3% cost of average debt, we forecast its interest expenses to be HKD 85mn/HKD 106mn/HKD 122mn during the period. Our sensitivity analysis suggests that for every 10bps increase in average financing cost, BEUR's 2020E-2022E net income will fall by 0.2-0.3% (see exhibit 31).

On the other hand, we estimate BEUR's net gearing ratio will decrease from 15% in 2019 to 8% in 2020E due to equity financing that raised HKD 541mn during the year. We expect it to gradually increase to 20% and 22% in 2021E and 2022E with more bid-winning projects in coming years. BEUR's current gearing is at a healthy level and hence does not need any equity financing at least in the coming 1-3 years, in our view.

Exhibit 29: BEUR's capex plan

	2018	2019	2020E	2021E	2022E
Total Capex (HKD mn)					
Environmental hygiene services	393	421	442	545	654
Hazardous waste treatment services	607	531	899	947	747
Waste electrical and electronic equipment treatment	71	27	0	0	0
Total	1,072	979	1,341	1,492	1,401

Sources: Company data, ICBCI estimates

Exhibit 30: Interest expenses and net gearing ratio

	2018	2019	2020E	2021E	2022E
Opening debt balance (HKD mn)	6,97	1,355	1,390	1,811	2,202
Net increase in debt (HKD mn)	6,58	35	421	391	193
Closing debt balance (HKD mn)	1,355	1,390	1,811	2,202	2,395
Interest expenses (HKD mn)	44	72	85	106	122
Net gearing ratio	29%	15%	8%	20%	22%

Sources: Company data, ICBCI estimates

Exhibit 31: Sensitivity test – average financing costs to net income

Average financing cost	2020E		2021E		2022E	
	net profit	Change (%)	net profit	Change (%)	net profit	Change (%)
5.6%	402	-0.8%	558	-0.7%	699	-0.6%
5.5%	403	-0.5%	559	-0.5%	700	-0.4%
5.4%	404	-0.3%	561	-0.2%	702	-0.2%
5.3% (base case)	405	0.0%	562	0.0%	703	0.0%
5.2%	406	0.3%	563	0.2%	705	0.2%
5.1%	407	0.5%	564	0.5%	706	0.4%
5.0%	408	0.8%	566	0.7%	708	0.6%

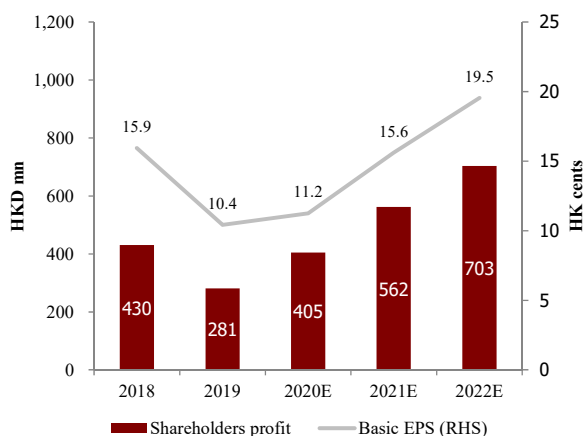
Sources: Company data, ICBCI estimates

Net profit and profitability

We forecast the company's net profit to increase from HKD 281mn in 2019 to HKD 703mn in 2022E, representing a CAGR of 36% during the 3-year period. The increase in net profit is mainly attributable to the rapid growth in environmental hygiene services and hazardous waste treatment segments – we forecast revenue of the two segments will grow at a CAGR of 30% and 38% in 2019-2022E respectively, with more projects coming into operation and more projects entering construction stage from preparatory stage.

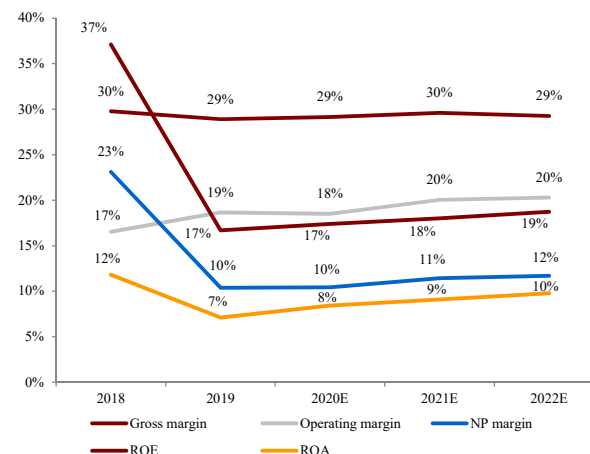
Compared with its peers (environmental companies) in HK stock market, BEUR has relatively low net gearing ratio, higher ROE and ROA as BEUR's environmental hygiene business requires lower capex under asset light business model and hazardous waste treatment business generally has higher return with project IRR at 25% compared with other sub-sectors in environmental industry, e.g. 6-8% project return of sewage treatment projects (see exhibit 34).

Exhibit 32: Shareholders' profit and EPS



Sources: Company data, ICBCI estimates

Exhibit 33: Profitability ratios



Sources: Company data, ICBCI estimates

Exhibit 34: Peers comparison – net gearing ratio in 2018 – 2022E

	Net gearing ratio				
	2018	2019	2020E	2021E	2022E
Beijing Enterprises Urban Resources	29%	15%	8%	20%	22%
Beijing Enterprises Water	111%	104%	117%	131%	143%
China Everbright International	65%	93%	116%	128%	128%
China Everbright Greentech	42%	79%	99%	109%	106%
China Everbright Water	68%	73%	85%	88%	90%
SIIC Environment	95%	101%	99%	99%	100%
Canvest Environmental Protection	53%	72%	84%	89%	90%
			ROE		
	2018	2019	2020E	2021E	2022E
Beijing Enterprises Urban Resources	37%	17%	17%	18%	19%
Beijing Enterprises Water	19%	18%	17%	17%	17%
China Everbright International	13%	14%	15%	15%	15%
China Everbright Greentech	15%	17%	17%	18%	17%
China Everbright Water	9%	10%	11%	12%	12%
SIIC Environment	7%	7%	8%	8%	8%
Canvest Environmental Protection	15%	16%	17%	17%	16%
			ROA		
	2018	2019	2020E	2021E	2022E
Beijing Enterprises Urban Resources	12%	7%	8%	9%	10%
Beijing Enterprises Water	5%	4%	4%	4%	4%
China Everbright International	6%	5%	5%	5%	5%
China Everbright Greentech	8%	7%	7%	7%	7%
China Everbright Water	4%	4%	4%	5%	5%
SIIC Environment	3%	2%	3%	3%	3%
Canvest Environmental Protection	7%	7%	7%	7%	7%

Sources: Company data, ICBCI estimates

Exhibit 35: Income statement

HKD mn	2018	2019	2020E	2021E	2022E
Revenue	1,863	2,711	3,879	4,909	6,013
Cost of Sales	(1,308)	(1,928)	(2,748)	(3,455)	(4,254)
Gross Profit/loss	554	783	1,131	1,454	1,759
Other revenue	55	60	85	103	120
SG&A expenses	(302)	(338)	(499)	(573)	(659)
Profit from operations	308	506	717	984	1,221
Finance costs	(44)	(72)	(85)	(106)	(122)
Share of loss of joint venture/associate	(1)	0	0	0	0
PBT	263	433	633	878	1,099
Income tax	(43)	(87)	(127)	(176)	(220)
Profit for the year	220	346	506	702	879
Discontinued operation	252	6	0	0	0
Profit attributable to Equity shareholders	430	281	405	562	703
Non-controlling interests	42	71	101	140	176
EPS (HK cents)	15.9	10.4	11.2	15.6	19.5

Sources: Company data, ICBCI estimates

Exhibit 36: Balance sheet

HKD mn	2018	2019	2020E	2021E	2022E
Current Assets	2,352	2,287	3,208	3,487	3,795
Inventories	87	45	58	74	90
Trade and bills receivables	657	775	1,031	1,311	1,612
Prepayments, deposits and other receivables	161	85	196	250	307
Cash and cash equivalents	734	1,052	1,529	1,405	1,290
Others	712	330	393	448	496
Non-current assets	2,551	2,700	3,819	4,922	5,779
PPE	1,840	2,083	3,107	4,156	4,953
Trade receivables	0	25	54	69	85
Prepayments, deposits and other receivables	152	115	196	250	307
Others	559	477	461	447	435
Total assets	4,902	4,987	7,026	8,409	9,575
Current liabilities	1,453	1,618	2,179	2,589	2,755
Bank and other loans	306	564	724	881	958
Trade and other payables	122	161	213	269	329
Others	1,025	893	1,242	1,439	1,468
Long term Liabilities	1,305	1,112	1,463	1,733	1,854
Bank and other loans	1,049	826	1,086	1,321	1,437
Others	256	286	377	412	417
Total Liabilities	2,758	2,730	3,642	4,322	4,609
Equity	2,145	2,258	3,385	4,087	4,966
Share capital	0	270	360	360	360
Other reserves	1,555	1,544	2,480	3,041	3,745
Non-controlling interest	589	444	545	685	861
Total equity and liabilities	4,902	4,987	7,026	8,409	9,575

Sources: Company data, ICBCI estimates

Exhibit 37: Cash flow statement

HKD mn	2018	2019	2020E	2021E	2022E
CF from OA	(54)	636	930	1,068	1,199
Profit before tax	515	440	633	878	1,099
Deprec & Amort.	156	237	334	458	618
Finance costs	58	72	85	106	122
Change in WC	(454)	(11)	(63)	(183)	(402)
Others	(330)	(102)	(59)	(191)	(238)
CF from IA	(757)	(258)	(1,329)	(1,477)	(1,384)
Purchase of PPE	(556)	(882)	(1,342)	(1,493)	(1,402)
Other investments	(201)	623	13	15	18
CF from FA	860	7	877	285	71
Net borrowings	856	117	421	391	193
Share issuance	120	0	541	0	0
Dividends	0	0	0	0	0
Interest paid	(50)	(64)	(85)	(106)	(122)
Others	(65)	(46)	0	0	0
Net cash flow	49	384	477	(125)	(115)

Sources: Company data, ICBCI estimates

Exhibit 38: Financial ratios

	2018	2019	2020E	2021E	2022E
YoY growth rate					
Revenue	104%	46%	43%	27%	22%
Operating profit	128%	41%	44%	29%	21%
Net profit	n.a.	-35%	44%	39%	25%
Profitability					
Gross margin	30%	29%	29%	30%	29%
Operating margin	17%	19%	18%	20%	20%
NP margin	23%	10%	10%	11%	12%
ROE	37%	17%	17%	18%	19%
ROA	12%	7%	8%	9%	10%
ROIC	19%	11%	13%	14%	14%
Liquidity					
Debt to Asset	56%	55%	52%	51%	48%
Net Debt to Equity	29%	15%	8%	20%	22%
Liquid ratio	1.6	1.4	1.5	1.3	1.4
Quick ratio	1.6	1.4	1.4	1.3	1.3
Operating efficiency					
Asset turnover	0.5	0.5	0.6	0.6	0.7
Inventory turnover days	20	12	7	7	7
AR turnover days	102	98	89	92	93
AP turnover days	28	27	25	25	26
Per share ratios (HK cents)					
EPS	15.9	10.4	11.2	15.6	19.5
BVPS	58	67	79	94	114
Valuation ratios					
P/E	7.8	12.0	11.1	8.0	6.4
P/B	2.2	1.9	1.6	1.3	1.1
EV/EBITDA	12.2	7.3	5.0	3.7	2.9

Sources: Company data, ICBCI estimates

Valuation

We initiate coverage on BEUR with OUTPERFORM rating and TP of HKD 1.53, which is based on our SOTP method with 15x 2020E P/E for its environmental hygiene services segment and 10x 2020E P/E for other segments.

We think Hong Kong Johnson Holdings is one of the peer that is comparable due to their similar natures and business models of environmental hygiene business. The main difference is Johnson focused on the saturated environmental hygiene service market in HK. While Johnson is currently trading at 13x P/E, we assume 15x 2020E P/E for BEUR's environmental hygiene services segment valuation due to its rapid industry growth and profitability in environmental hygiene business in China.

On average, downstream environmental companies listed in HK are trading at 5.7x 2020E P/E – In particular, WTE companies are trading at 6.3x and sewage treatment companies are trading at 4.4x. We therefore assume 10x 2020E P/E for its other segments valuation to reflect its rapid industry growth and higher return of hazardous waste treatment business in China.

Exhibit 39: SOTP valuation for BEUR

Environmental hygiene services	
2020 net profit (HKD mn)	295
Equity value per share @15x PE (HKD)	1.23
Hazardous waste treatment and other segments	
2020 net profit (HKD mn)	110
Equity value per share @10x PE (HKD)	0.31
Total Equity value per share (HKD)	1.53

Sources: ICBCI estimates

Exhibit 40: Peer comparison*

Company	Ticker	Price	Market cap (HKD mn)	P/E (x)		P/B (x)		ROE (%)		Dividend yield (%)	
				2020	2021	2020	2021	2020	2021	2020	2021
HK listed											
Environmental hygiene											
Beijing Enterprises Urban **	3718 HK	1.25	4500.0	11.1	8.0	1.6	1.3	17.4	18.0	-	-
Sewage treatment											
Beijing Enterprises Water**	371 HK	3.07	30,765.1	5.5	5.0	0.9	0.8	17.3	17.0	6.9	7.6
SIIC Environment**	807 HK	1.22	3,175.4	4.2	3.8	0.3	0.3	7.6	8.0	5.2	5.8
China Everbright Water**	1857 HK	1.19	3,404.4	3.4	2.9	0.4	0.3	10.8	11.5	6.7	7.8
Average				4.4	3.9	0.5	0.5	11.9	12.2	6.3	7.1
Solid waste treatment											
China Everbright International**	257 HK	4.15	25,493.3	4.2	3.6	0.6	0.6	15.1	15.4	7.2	8.3
China Everbright Greentech**	1257 HK	2.98	6,156.9	3.2	2.7	0.5	0.4	17.4	17.6	6.3	7.4
China Conch Venture	586 HK	34.9	62,985.8	7.7	6.9	1.5	1.3	21.8	19.5	2.3	2.7
Dynagreen Environmental	1330 HK	2.79	9,288.0	6.3	5.6	0.8	0.7	13.2	13.4	4.5	5.1
Canvast Environmental**	1381 HK	3.37	8,221.3	7.9	6.9	1.2	1.1	16.6	16.6	2.5	2.9
Dongjiang Environmental	895 HK	5.47	8,194.0	8.7	7.5	0.9	0.8	10.2	10.9	3.4	3.9
Average				6.3	5.5	0.9	0.8	15.7	15.5	4.4	5.1
Total average - HK-listed				6.2	5.3	0.9	0.8	14.7	14.8	5.0	5.7
A-Share											
Environmental hygiene											
Tus Environmental	000826 CH	7.64	11,951.1	11.8	10.4	0.7	0.6	5.0	5.7	0.3	1.6
Infore Environment	000967 CH	8.44	29,191.2	16.3	13.6	1.6	1.4	9.6	10.4	1.4	1.6
Qiaoyin Environmental	002973 CH	23.87	10,666.4	39.1	30.3	7.5	6.1	20.5	21.0	-	-
EIT Environmental	300815 CH	124.82	18,889.6	33.3	25.5	8.4	6.5	29.2	28.5	0.4	1.0
Longma Environmental	603686 CH	22.95	10,430.8	25.1	20.5	3.4	3.0	13.1	14.2	1.0	1.1
Average				25.1	20.1	4.3	3.5	15.5	16.0	0.8	1.3
Sewage treatment											
Originwater Technology	300070 CH	8.65	29,932.0	16.8	13.8	1.3	1.2	7.6	8.7	0.7	0.8
Guozhen Environment	300388 CH	9.54	7,088.3	16.0	14.1	1.7	1.6	10.2	10.8	1.2	1.3
Bosscoc Environmental	300422 CH	11.21	4,361.8	10.2	8.4	1.9	1.5	17.6	18.0	1.0	1.2
Penyao Environmental	300664 CH	9.54	7,606.5	14.5	11.1	1.8	1.6	12.1	13.4	-	-
Beijing Capital	600008 CH	3.06	19,023.4	16.7	15.1	0.9	0.9	5.9	6.7	2.6	2.8
Average				14.8	12.5	1.5	1.4	10.7	11.5	1.4	1.5
Solid waste treatment											
China Tianying	000035 CH	4.98	13,743.0	12.5	9.2	1.1	1.0	8.5	10.3	-	-
Jinyuan EP	000546 CH	10.6	8,283.2	9.1	8.0	1.6	1.3	17.2	16.6	1.9	1.9
Wangneng Environment	002034 CH	17.95	8,258.6	14.7	12.1	1.6	1.3	10.9	11.5	0.6	0.7
GEM Co	002340 CH	4.66	24,379.1	21.9	15.9	1.7	1.6	7.9	10.3	0.8	1.1
Welle Environmental	300190 CH	8.27	7,087.7	15.3	12.6	1.5	1.4	9.7	11.2	1.6	1.8
China Resource And Environment	600217 CH	5.23	7,941.4	15.0	13.1	2.8	2.3	19.1	17.1	-	-
Grandblue Environment	600323 CH	22.27	18,659.5	16.2	13.3	2.2	1.9	14.0	14.7	1.0	1.2
Shanghai Environment	601200 CH	12.14	12,125.3	16.4	12.6	1.4	1.3	8.8	10.4	1.0	1.3
Weiming Environment	603568 CH	29.04	30,692.9	22.9	18.3	5.4	4.2	24.9	24.5	1.2	1.3
Beijing GeoEnviron	603588 CH	12.25	9,114.0	15.3	12.2	2.3	2.0	14.7	15.7	0.7	0.8
Average				15.9	12.7	2.2	1.8	13.6	14.2	1.1	1.2
Total average - A share				18.0	14.5	2.5	2.1	13.3	14.0	1.1	1.3

Sources: Bloomberg, ICBCI estimates

*Closing price and valuation as of 17 Jun, 2020

** Based on ICBCI's estimates

Investment risks

Contract renewal risk

Environmental hygiene services contract often includes “3+3+2” terms, and operators can renew the contract after 3 years’ operation. However, in case of 1) local govt. not satisfied with the performance or 2) failed to meet the company required return, the contract will be terminated and thus negatively impact the earnings.

Decrease in utilization rate

Our assumption on utilization rate is mainly based on the hazardous waste volume produced by the enterprises and days needed for facilities maintenance. In case of 1) lower-than-expected volume of hazardous waste due to halted economic activities or 2) longer-than-expected facilities maintenance, utilization rate will be negatively impacted, and thus weighing on the company’s profitability. Our sensitivity analysis suggests 1ppt decrease in waste disposal utilization rate and waste recycling utilization rate would result in 1% decrease and 0.2-0.3% decrease of its net profit in 2020E-2022E respectively.

Hazardous waste treatment gross margin reduction

Hazardous waste treatment operators are experiencing the gross profit margin reduction on the back of the accelerated competitive market as more operators entered the industry. Any decrease in the waste treatment fee would have negative impact on the earnings.

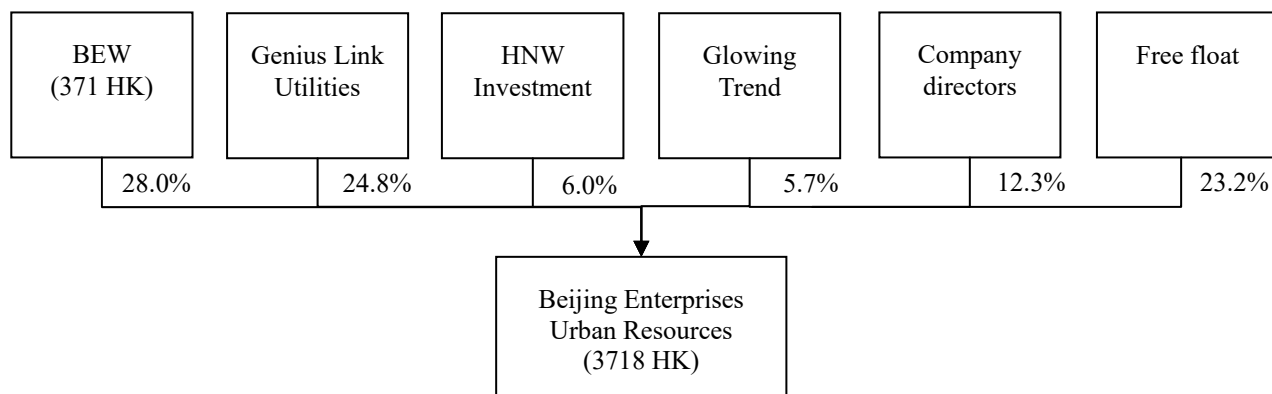
Delayed in environmental decommission fees receivable payment

Environmental decommission fees income accounts for 50% of waste electrical and electronic equipment treatment revenue. However, 3-4 years are needed for the govt. confirmation and cash payment before allocation of subsidy. In addition, the payments of the subsidies are subject to delay, which adversely affect company’s cash flow position.

Interest rate risk

Our sensitivity analysis suggests that operators’ 2020-2022E net profit will decrease by 0.2-0.3% for every 10 bps increase in interest rate. Any increase in average costs of debts would have negative impact on their earnings.

Appendix

Exhibit 41: Shareholding structure


Sources: Company data, ICBCI

Exhibit 42: Management profile

姓名	Name	Age	Title	Key experience
赵克喜	Zhao Kexi	44	Executive Director, Chief Executive Officer and President	Chairman of the board and general manager of Qingdao BE (2016-2019) Beijing Enterprises Water Group (2008-2016) Head of the auditing department of BE Zhongkecheng Environmental (2003-2008) Mianyang Yiduoyuan Real Estate Development Co., Ltd. (1999-2003)
張海林	Zhang Hailin	49	Executive Director and Vice President	Beijing Enterprises Environmental Investment (PRC) Co., Ltd. (2015-2019) Beijing Enterprises Water Group (2009-2015) Beijing Aimasi District Cooling Technology Development Co., Ltd. (2003-2008) Aiqigao Technology (Beijing) Co. (2000-2002) CITIC Group Corporation (1997-2000)
黃志万	Huang Zhiwan	60	Executive Director	Director of BE Urban Resources PRC (2017-2019) Guigang Medical Waste (2014-2017) General Manager of Guigang Sanitation (2013-2017) Director of Guigang Environmental Protection (2016-2017) Vice General Manager of Guigang Environmental Protection (2012-2015)
周敏	Zhou Min	55	Chairman and Non-executive Director	Chairman of BE Zhongkecheng Environmental (2014-Present) Executive Director and Chief Financial Officer of BE Zhongkecheng Environmental (2001-2014) Chief Executive Officer of BEWG (2016-Present) Executive Director of BEWG (2008-2016)
李力	Li Li	54	Non-executive Director	Executive President of BEWG (2016-Present) Executive Director of BEWG (2011-2016) Sound International Co., Ltd. (2007-2011) Beijing Sound Environmental Construction Company Limited (2001-2007) Zhong Ji First Design & Research Institute Company Limited (1988-2001)
李海枫	Li Haifeng	49	Non-executive Director	Executive Director and Vice President of BEWG (2008-Present) Non-executive director of Simsen International Corporation Limited (2010-2013) Supervisor of BE Zhongkecheng Environmental (2006-2008) Executive Vice President of Founder Xintiandi Software Technology Co. Ltd. (2001-2005) Assistant President of Peking University Founder Group Co., Ltd. (1992-2000)

Sources: Company data, ICBCI

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 - Underperform** : Total stock return (including dividends) expected to trail relevant market index by more than 20% over next 12 months
 - Under Review** : Analyst currently does not have adequate conviction about total stock return (including dividends) relative to relevant market index over next 12 months
-

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