

Binh Duong Water Environment JSC

[Vietnam / Utilities]

Bloomberg Code (BWE VN) | Reuters Code (BWE.HM)

MUA

	Initiation
Target price (12 mths)	VND63,200
Current price (June 17th, 2022)	VND51,200
Upside (%)	+23.4

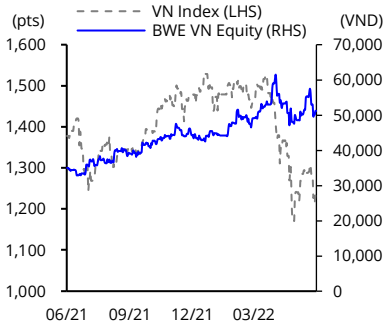


[Analyst]

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VNINDEX	1236.63
Market P/E (x)	12.32
Market Cap. (bn VND)	9877.504
Outstanding Shares (mn)	192.92
Free Floating Shares (mn)	8.708661
Free Floating (%)	4.514130728
52-Wk High (VND)	62000
52-Wk Low (VND)	32200
3M Avg. Trading Vol. (mn)	0.3898878
Major shareholders (%)	
TDM	37.42
BCM	19.44

Performance			
Absolute (%)	4.3	12.5	42.6
Relative (%)	19.7	29.0	51.7



Steady growth

Initiate coverage with BUY call, target price VND 63,200

Binh Duong Water - Environment JSC (HoSE: BWE) is one of the leading enterprises in the water and environment industry in Vietnam. BWE has a sustainable business model with steady growth and a promising development strategy. We initiate coverage of BIWASE with a BUY rating and a target price of VND 63,200, representing a potential upside of 23.4%. Our target price is based on the P/E and DCF valuation methodologies, with weights of 50% and 50%. We expect the net profit of BWE to continue to grow at a rate of 10% during the periods of 2022–2026 thanks to stable growth in both demand and unit price.

The sustainable business model with steady growt

BWE and TDM are two exclusive tap water providers in Binh Duong province. This area has a high proportion of the urban population. The total population in this area has grown steadily over the past decade due to a wave of immigrants from other provinces seeking employment at this industrial hub. Along with that, FDI capital kept flowing to Binh Duong to build factories, which are the main drivers boosting the demand of clean water in recent years. In addition, the average unit price of tap water is expected to grow by at least 5% in the next five years thanks to pricing policies issued by the People's Commitee of Binh Duong province.

The waste treatment segment has enormous potential

According to the plan of the Government and People's Committee of Binh Duong province, the amount of domestic and production solid waste will be treated and recycled. This is a new market and it still has plenty of room as the conventional type of waste treatment, landfilling is still dominating in Vietnam. Currently, BWE is one of the leading recycling and disposal service providers in the industry. Along with that, this company has autonomous processing technology and can commercialize it to potential customers.

Ambitious corporate development strategy via M&A

BWE has aggressively conducted M&A with companies in the same sector in the southern region, namely Can Tho and Dong Nai provinces. In the period 2021-2022, the pivoting plan of government focusing on investment in the South will help the infrastructure of this region upgrade significantly. With its technological advantage, such as having the lowest non-revenue water rate compared with its peers and strong financing capabilities with support from reputational financial institutions such as ADB, World Bank, BWE has the potential to win important projects.

Year to Dec.	2021	2022F	2023F	2024F	2025F
Revenue (bn VND)	**3,119**	**3,427**	**3,798**	**4,103**	**4,490**
OP (bn VND)	845	940	1,019	1,083	1,193
NP (bn VND)	**750**	**787**	**842**	**918**	**982**
EPS (VND)	3,886	4,077	4,363	4,756	5,089
BPS (VND)	19,840	20,547	21,492	22,446	23,512
OPM (%)	27%	27%	27%	26%	27%
NPM (%)	24%	23%	22%	22%	22%
ROE (%)	**20%**	**21%**	**20%**	**21%**	**22%**
PER (x)	12.3	15.5	8.6	9.4	8.4
PBR (x)	3.1	3.0	2.8	2.7	2.6

Source: Company data, Shinhan Securities Vietnam

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CONTENTS

3 **Valuation and Recommendation**

7 **Industry and business overview**

12 **Investment Thesis**

19 **Business results and prospects**

23 **Risk**

24 **Appendix: Financial Statements**

Valuation and Recommendation

Initiate coverage with BUY call and TP of VND 63,200

We initiate coverage Binh Duong Water - Environment JSC with a buy recommendation and target price of VND 63,200, equivalent to a 23.4% increase from the current price. From a long-term view, BWE is an investment that can be considered based on the following reason:

1) Solid business model and sustainable growth.

2) The waste treatment segment still has the potential to develop.

3) Corporate development strategies via horizontal M&A promise a bright future.

Valuation

In our perspective, DCF & P/E methods are reasonable techniques for valuing the company in the water supply industry. We use a combination of P/E and Discounted Cash Flow (DCF) valuation methods, with 50% for each. For the FCFF method, we assume the revenue of BWE has a stable growth rate of about 10% in the period 2022-2026 thanks to an increase of about 5% in the demand for tap water in Binh Duong due to population growth. Besides that, Binh Duong is the most favorite place for FDI enterprises to build the factory, along with a conservative view of the price mechanism, which increase 5% per year.

Unit: VND bn	2021	2022F	2023F	2024F	2025F	2026F
Net Income	750	787	842	918	982	1,072
Plus: Interest after tax	155	167	186	193	222	243
Plus: D&A	425	544	502	546	548	481
Less: Net working capital	(141)	11	137	107	139	160
Less: Capex	(770)	(292)	(517)	(410)	(645)	(531)
FCFF	**418**	**1,217**	**1,150**	**1,354**	**1,245**	**1,425**
Discount factor		0.92	0.84	0.77	0.71	0.65
PV of FCF		1,117	969	1,047	884	929
Terminal growth (%)	0%					
PV of Terminal value	10,398					
Enterprise value	15,345					
Net borrowing	(3,582)					
Cash and equivalent	476					
Total outstanding share	0.19					
Target price	**63,442**					

For the Weighted Cost of Capital (WACC), we use the 5-year Vietnamese government bond yield at 2.52% as the risk-free rate. Beta is calculated based on the latest 5-year historical data of BWE and VNINDEX. Based on those assumptions, BWE's FCFF target price is valued at VND 63,442.

WACC (%)	**8.89%**
Risk-free rate (%)	5.00%
Equity risk premium (%)	7.80%
Beta	0.73
Cost of debt (%)	9.00%
Cost of equity (%)	10.69%
Debt to capital ratio (%)	2.05
Value of debt (bn VND)	3,931

Based on the P/E multiple method, we collect data from other enterprises operating in the same sector as BWE in the Asia Pacific region, the average P/E of these companies (excluding BWE) is 16.62x. Besides that, BWE's 5-year historical P/E average is 14.27x. We estimate BWE's target P/E at 15.45x. BWE's target price of VND 62,989 is based on a forward EPS of VND 4,077 for 2022.

Ticker	Name	P/E	EV (VND)	Market Cap (VND)
300692 CH Equity	ANHUI ZHONGHUAN ENVIROMENT-A	13.16	16,606,273	9,789,355
CEWL SP Equity	CHINA EVERBRIGHT WATER LTD	18.82	20,319,037	14,501,266
603759 CH Equity	HAITIAN WATER GROUP CO LTD-A	12.36	46,820,978	14,343,232
600168 CH Equity	WUHAN SANZHEN INDUSTRY HO-A	23.78	10,965,732	9,784,732
TWK MK Equity	TALIWORKS CORP BHD	22.43	18,219,515	10,324,185
WHAUP TB Equity	WHA UTILITIES AND POWER PCL	11.40	15,024,147	8,114,232
EASTW TB Equity	EASTERN WATER RESOURCES DEV	14.38	32,289,500	28,742,465
BWE VN Equity	BINH DUONG WATER ENVIROMENT	16.26	12,778,718	10,224,760
Average (exclude BWE)		16.62	22,892,169	13,657,067
Average PE 5 years of BWE		14.27		
Forward EPS 2022		4,077		
Target price		**62,989**		

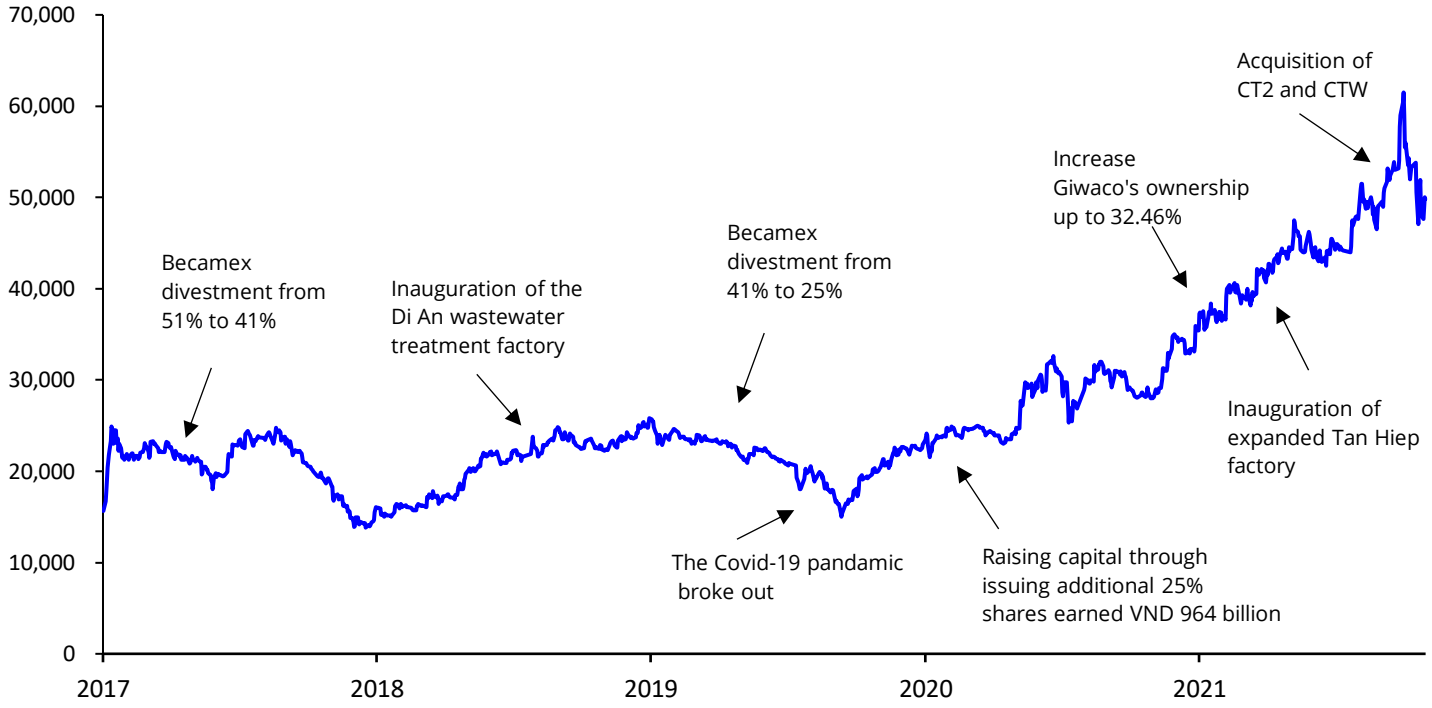
Source: Bloomberg, Shinhan Securities

Ticker	Name	Dividend Yield	Sales Growth (%)	OPM(%)	NI growth (%)	Net Profit Margin	Capex/ Sales (%)	ROA	ROE
300692 CH Equity	ANHUI ZHONGHUAN ENVIROMENT-A	0.74	19.30	29.95	22.25	17.52	37.30	4.32	11.12
CEWL SP Equity	CHINA EVERBRIGHT WATER LTD	7.33	22.06	29.55	8.95	16.77	0.43	3.87	10.35
603759 CH Equity	HAITIAN WATER GROUP CO LTD-A	1.25	27.42	30.60	19.40	19.11	52.09	4.25	11.92
600168 CH Equity	WUHAN SANZHEN INDUSTRY HO-A	1.84	22.89	10.31	12.96	(1.51)	87.28	(0.18)	(0.62)
TWK MK Equity	TALIWORKS CORP BHD	7.14	(4.91)	36.69	31.11	26.13	0.38	3.93	8.47
WHAUP TB Equity	WHA UTILITIES AND POWER PCL	6.25	28.44	19.86	(11.34)	33.05	26.60	4.80	7.00
EASTW TB Equity	EASTERN WATER RESOURCES DEV	5.75	10.14	32.29	38.80	22.93	61.40	3.91	9.59
BWE VN Equity	BINH DUONG WATER ENVIROMENT	**2.26**	**7.04**	**28.18**	**32.23**	**23.98**	**24.69**	**8.64**	**17.20**

Source: Bloomberg, Shinhan Securities

Based on the financial ratio of companies with the same market cap, it can be seen that BWE is an outstading player, with ROE and ROA much higher than the average in the same sector. In addition, the net profit margin of BWE was a bright spot as it reached 23.98%, higher than most of its peers.

Key event chart of BWE



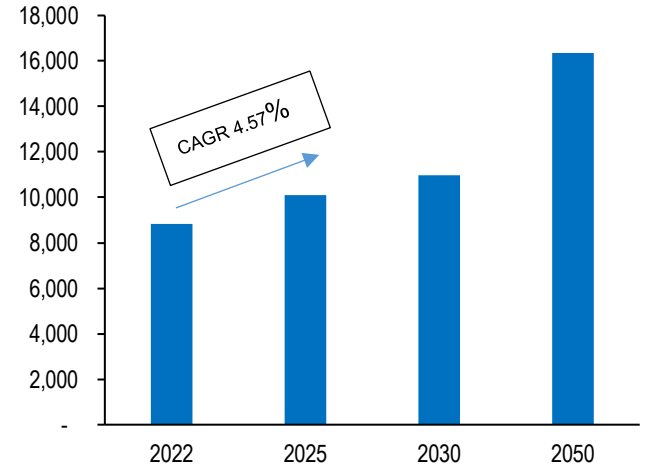
Industry overview and company background

Water industry in Vietnam and Binh Duong province

Government's orientation

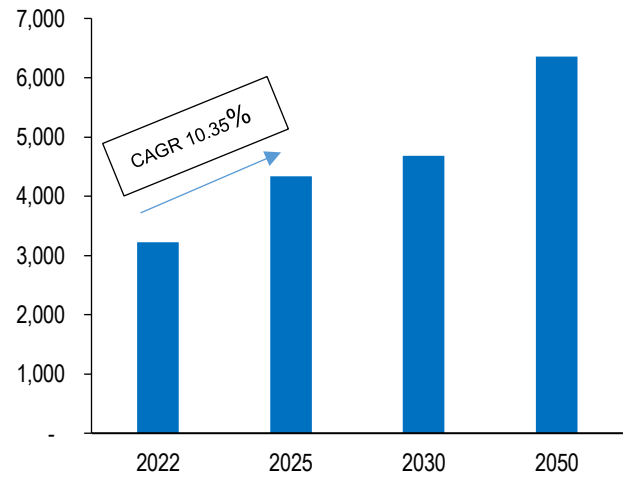
According to the Water Resources Planning for 2021-2030, with a vision to 2050 of the Ministry of Natural Resources and Environment, water demand from industrial segment and residential segment in Vietnam will grow at a CAGR of 4.57% and 10.35% respectively in the 2022-2025 period.

Planning on industrial water demand 2022-2025



Source: Ministry of Natural resources & Environment

Planning on residential water demand 2022-2025



Source: Ministry of Natural resources & Environment

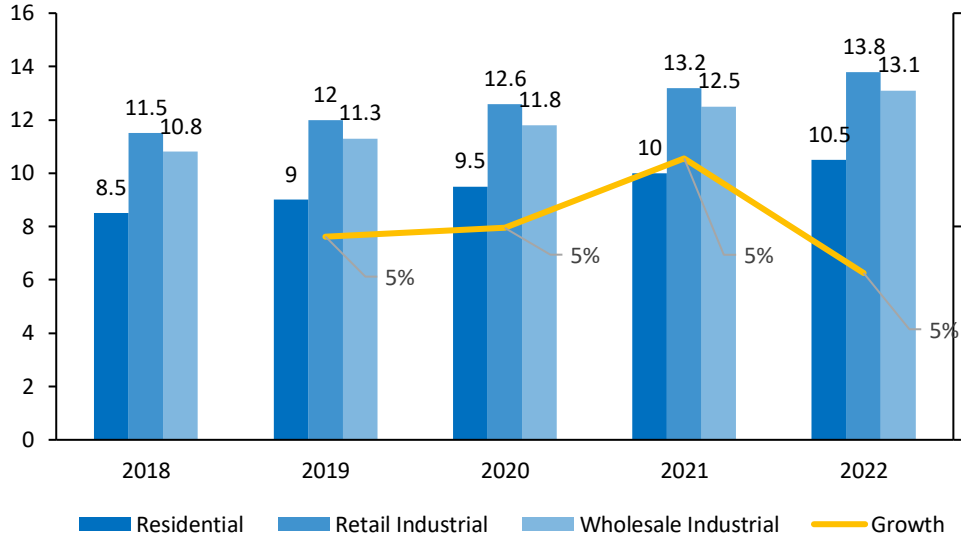
At the same time, according to Decision 3613/QD-UBND about the water resources planning of Binh Duong province 2016-2025 with a vision to 2035, which was released by the People's Committee of Binh Duong in 2016, the total demand for residential water and industrial water in Binh Duong province has grown at a CAGR of 5.19% from 2020 to 2025.

Pricing policy

According to Decree 117/2007 / ND-CP released in 2007, the local government had the right to decide on the suitable pricing for tap water within the range of prices set by the Ministry of Finance. In addition, the wholesale water tariff must be agreed upon by the wholesale water supply enterprises.

According to Decision 04/2018/QD-UBND issued by the People's Committee of Binh Duong, the water pricing for residential and industrial is shown in the chart below with a steady average growth of 5%/year in 2018-2022.

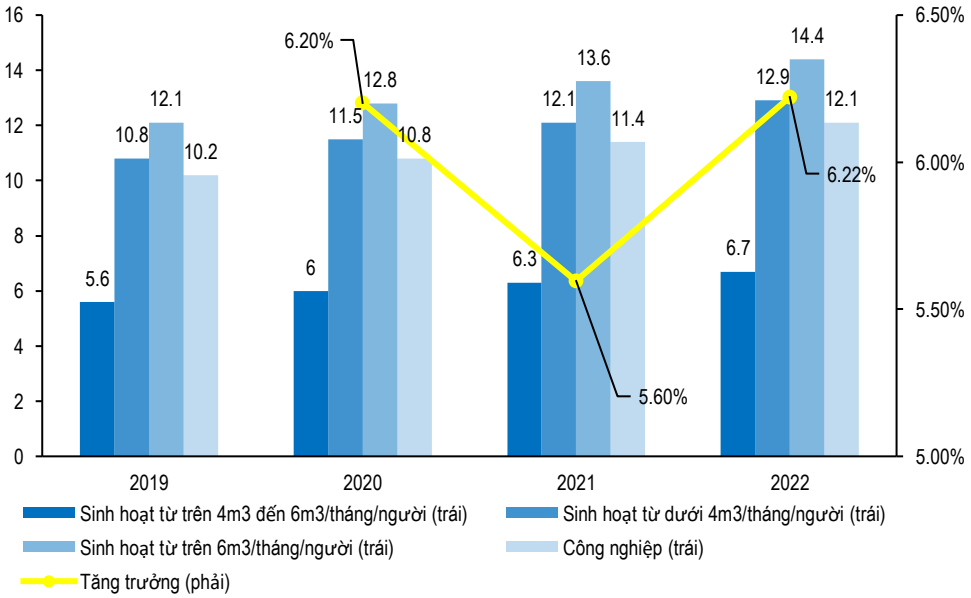
Water pricing in Binh Duong of 2018-2022



Source: Company data, Shinhan Securities Vietnam

Water pricing in Binh Duong and Ho Chi Minh City has a different structure. However, the growth rate of SAWACO last year was higher than the rate of tap water price increases in Binh Duong.

Water pricing in the HCMC 2018-2022



Source: SAWACO, Shinhan Securities Vietnam

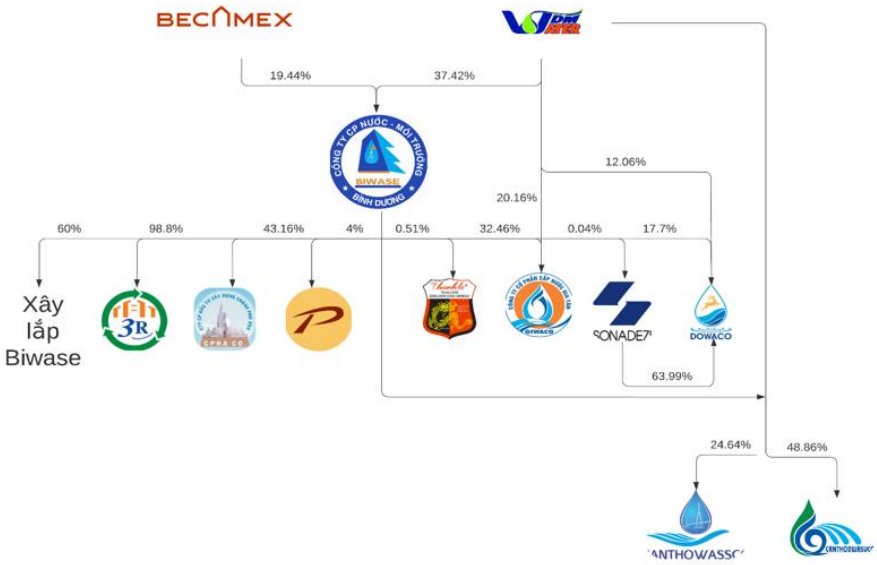
Company overview

BWE's history

BWE was established before 1975, formerly known as "Binh Duong Water Supply Center", with 5 underground water pumping stations. In 1995, BWE ran the first surface water factory- Thu Dau Mot surface water plant.

Since 2016, the company has officially transformed from a company with 100% state-owned capital to a joint-stock company with the name of Binh Duong Water - Environment Joint Stock Company.

In July 2017, Binh Duong Water - Environment Joint Stock Company was officially listed on the Ho Chi Minh Stock Exchange with the sticker BWE. In March 2019, Binh Duong Provincial People's Committee withdrew capital from 41% to 25%.



Subsidiaries and affiliates

BWE owns two subsidiaries, including:

- 98.8% Recycling - Green Materials JSC (3R)
- 60% of BWE Construction and Electrical JSC

BWE invests in 2 associates, including:

- 43.16% Chanh Phu Hoa Construction – Investment JSC
- 32.46% Gia Tan Water Supply JSC

BWE invests in 6 other companies, including:

- 17.7% Dong Nai Water Supply Joint Stock Company (DNW)
- 4% of Binh Duong Production and Import-Export Corporation
- 0.51% Thanh Le Import-Export Trading Corporation
- 0.04% Industrial Park Development Corporation
- Can Tho Water Supply and Sewerage Joint Stock Company and Can Tho Water Supply Joint Stock Company II (no specific information on ownership rate)

The water supply industry and business model

BWE operates in 3 main segments, including tap water supply, waste treatment, and wastewater treatment. The core business of BWE is water supply, which contributes 63% of revenue and 81.6% of gross profit for the whole enterprise. BWE has actively expanded its tap water industry through M&A deals with Gia Tan Water Supply, Dong Nai Water Supply, and most recently the Can Tho Water Supply and Sewerage and Can Tho Water Supply 2.

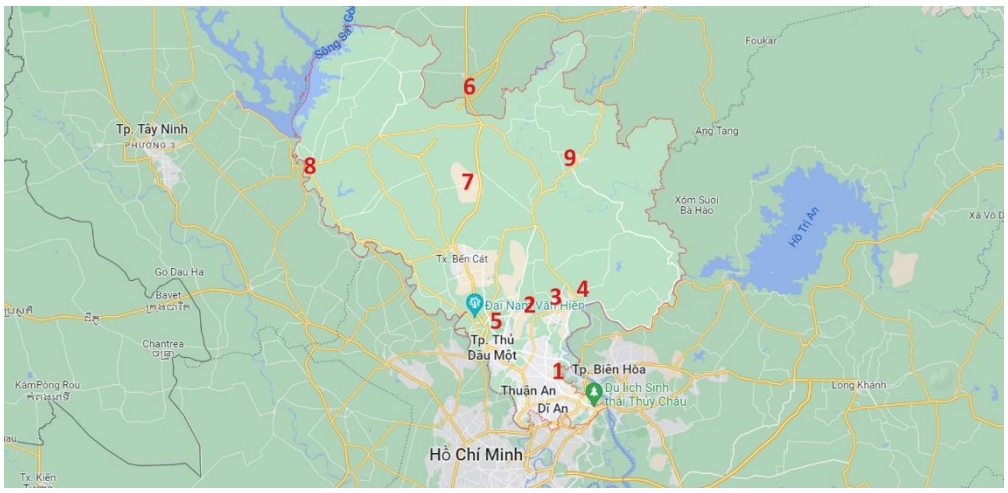


In the tap water supply sector, BWE has a completed value chain from the water pump to distribution. Specifically, BWE will absorb water from the Dong Nai River and Phuoc Hoa Lake. After that, BWE processes raw water and then delivers it through the pipeline to residential and industrial customers.

BWE owns 9 water plants with a maximum supply capacity of nearly 1 million cbm/day. In addition, BWE also has 1 waste treatment branch, 4 wastewater treatment branches, 1 water supply, and drainage consulting branch, 1 urban service branch, 1BWE M&E technology branch, and 1 Con Voi trade branch.

No	Name	Maximun Capacity (cbm)
1	Di An water plant	400,000
2	Tan Hiep water plant	330,000
3	Nam Tan Uyen water plant	75,000
4	Uyen Hung water plant	45,000
5	Thu Dau Mot water plant	30,000
6	Chon Thanh water plant	40,000
7	Bau Bang water plant	70,000
8	Dau Tieng water plant	3500
9	Phuoc Vinh water plant	3,500

Source: Company data, Shinhan Securities Vietnam



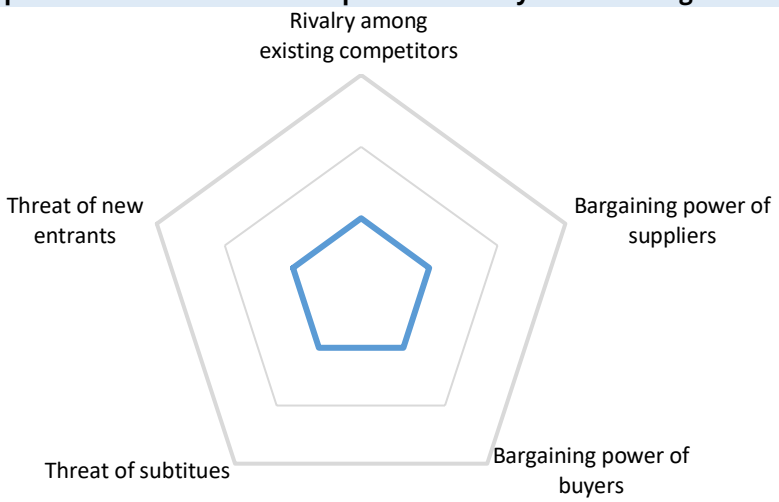
Source: Company Data

Investment thesis

Sustainable business model with steady growth

1. Sustainable business

BWE's competitive environment in the tap water industry in Binh Duong



Assessment of the competitive environment in the water sector in the Binh Duong province of BWE:

- **Rivalry among existing competitors - Low**: In Binh Duong province, there are two company supply tap water, namely BWE and TDM. Meanwhile, TDM is the wholesale supplier for BWE, and TDM stakes a 37.42% in BWE so the competition of existing competitors for BWE is assessed at a low level.
- **Bargaining power of suppliers - Low**: In the business model of BWE, river water is raw material so BWE does not face much pressure from supplier bargaining. However, We still buy treatment water from TDM and BWE is a subsidiary of TDM so the effect of bargaining from the supply is assessed to be low.
- **Threat of substitutes- Low**: Subtitles of tap water in Binh Duong are wells water. As living standard was improved gradually, the majority of the population tends to use tap water. Therefore, the possibility of clean water being replaced by water wells is very low.
- **Threat of new entrants - Low**: For the water sector, the amount for CAPEX such as factories and distribution systems is a the biggest barrier for new businesses that intend to enter a market that has been almost monopolized by BWE.

- **Bargaining power of buyers - Low**: According to Maslow's hierarchy of needs, clean water is a physiological need. As a result, The elasticity of demand is very low so when the monetary policy expands or narrows, human water demand has not decreased significantly. In addition, regarding the water price being decided by the People's Committee of Binh Duong province, customers will not be able to bargain on the water price.

Maslow's hierarchy of needs



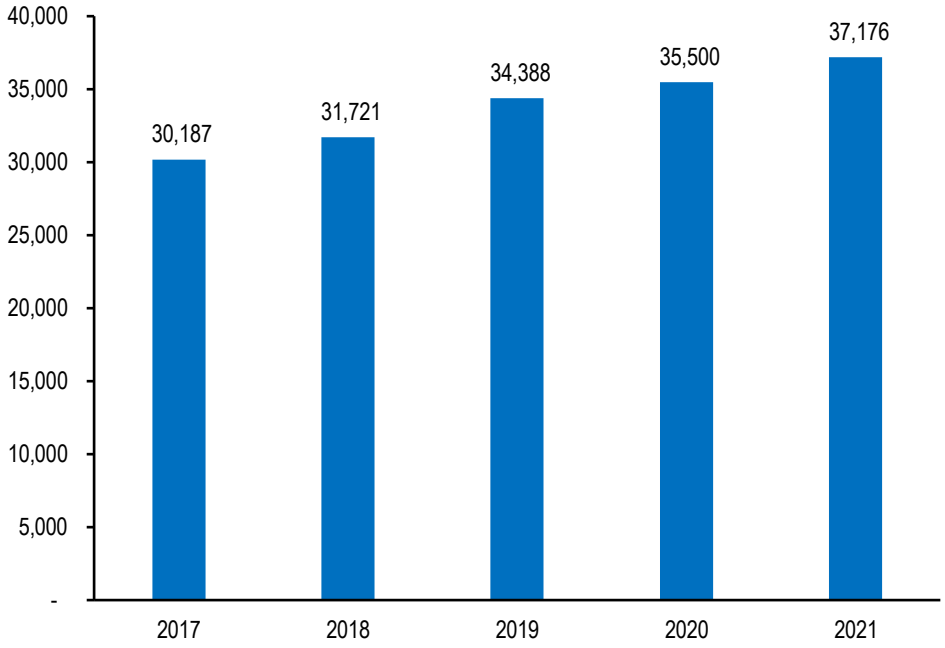
2. Steady growth rate

a. Binh Duong is a favorite place for FDI capital and has plenty of room for expansion

According to the Binh Duong Industrial Zones Authority, Binh Duong will have 33 industrial zones covering 14,790 hectares. Of which, 27 industrial zones were operating with a total area of 10,962.81 hectares, 2 industrial zones are carrying out infrastructure investment procedures: Vietnam-Singapore Industrial Park III (VSIP III) and Cay Truong Industrial Park, with a total area of 1,700 ha.

The occupancy rate in industrial zones that have been put into operation is 89%. According to statistics from the Ministry of Construction, these industrial zones create jobs for 472,461 workers, of which 87% are from other provinces. According to the General Statistics Office's report on the census of population and housing in 2019, Binh Duong is the province with the highest net migration rate in the country (200.4%) with more than 489 thousand immigrants, while only 38,000 people emigrated from this province in the five years 2014-2019.

Registered foreign investment capital (million USD)



Source: Ministry of Planning and Investment

In December 2021, Binh Duong had the second-highest foreign direct investment (FDI) in Vietnam. Based on the growth trend in recent years, we expected FDI capital kept flowing to Binh Duong to build factories. Currently, industrial customers distribute 55% of the revenue tap water of BWE. Therefore, it is expected that the water demand of this customer group will plunge because Binh Duong still has room for the manufacturing industrial zone.

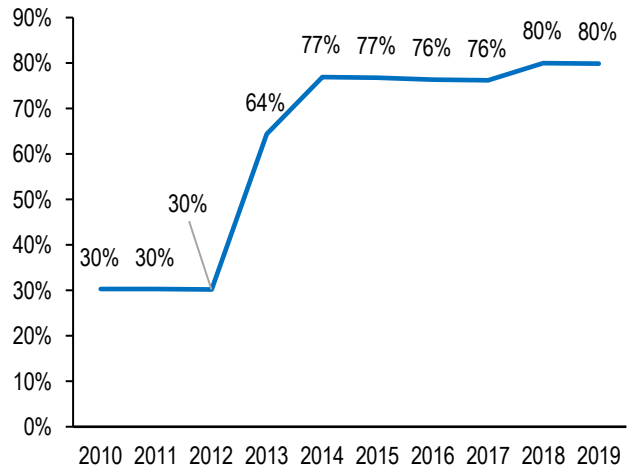
According to the Ministry of Planning and Investment, as of January 2022, the whole market in Binh Duong Industrial Park has 3,000 projects under-investment. projects with a foreign investment capital amount of 2,333 with a total registered investment capital of USD 25.89 billion.

In March 2022, LEGO Group announced the company would invest USD 1 billion in a factory in Binh Duong. The construction of VSIP III Industrial Park on March 19 with a scale of 1,000 hectares and an investment of VND 6,400 billion, promises to become a new growth engine for BWE when it comes into operation.

b. Stable population growth and a high urbanization rate

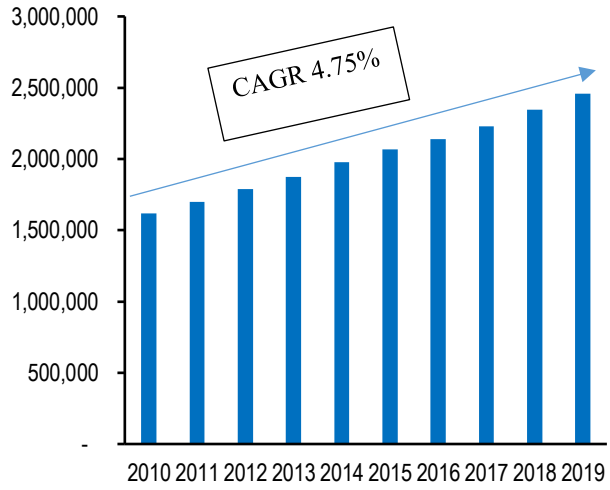
According to the Binh Duong Statistical Office, the population of Binh Duong province had a CAGR of 4.75% from 2010 to 2019 thanks to the influx of immigrants from other provinces to work in industrial zones.

Urbanization rate in Binh Duong province



Source: Binh Duong Statistical Office

Population of Binh Duong 2010-2019



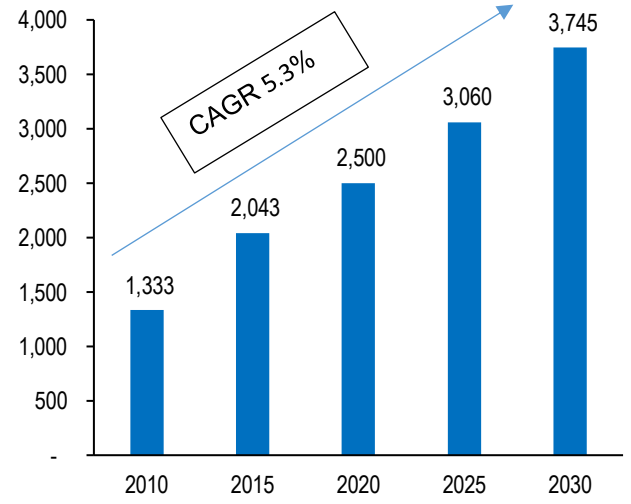
Source: Binh Duong Statistical Office

In the last decade, the urbanization rate in Binh Duong has increased from 30% to 80%—the highest in Vietnam. Binh Duong achieved this thanks to its densely populated and rapid urbanization. In the water sector, the rate of using tap water for urban residents in Binh Duong is 99.86%.

The waste treatment segment is on growing mode

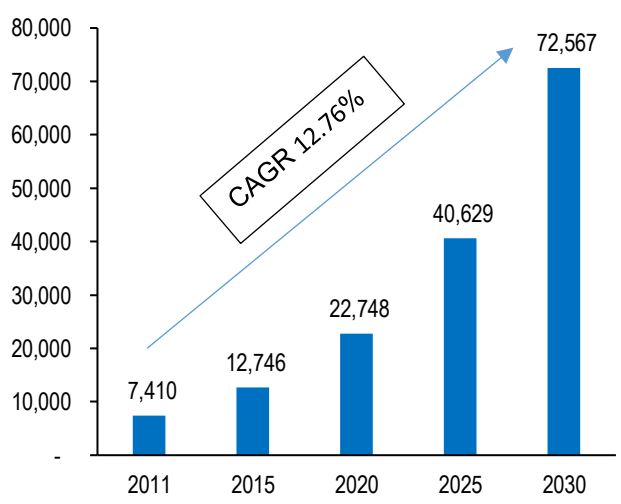
According to the Ministry of Natural Resources and Environment, the total amount of domestic solid waste is 25 million tons, but only 30% is burned or recycled, and the rest, about 70%, is buried directly. Of which, 80% is the current landfill that is unhygienic, and harmful to the environment, and only 13% of the garbage is burned for energy.

Total volume of domestic solid waste in Binh Duong province (tons/day)



Source: People's Committee of Binh Duong Province

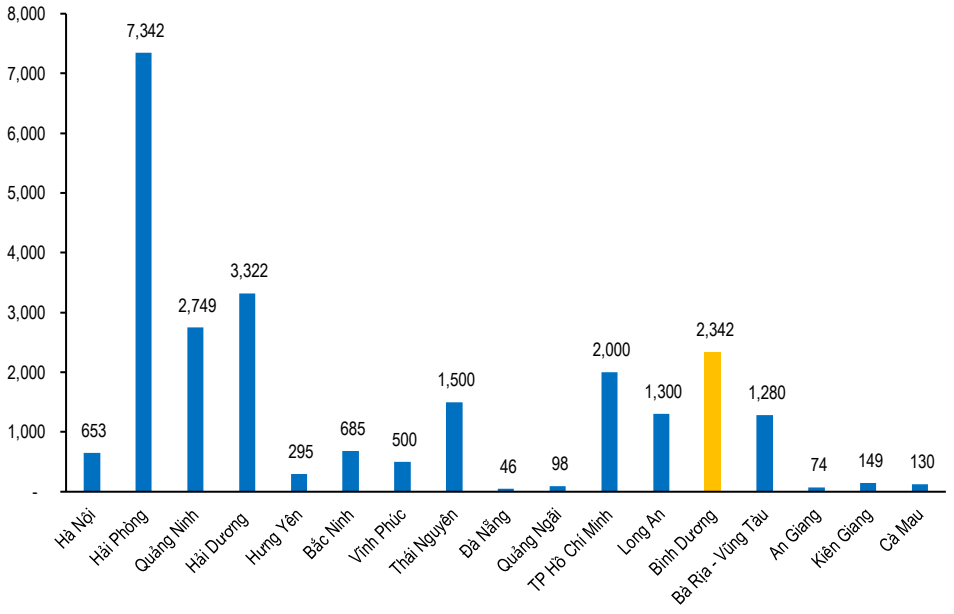
Total volume of industrial solid waste in Binh Duong province (tons/day



Source: People's Committee of Binh Duong Province

According to the report on the current state of the environment in the period 2016-2020 by the Ministry of Natural Resources and Environment, domestic solid waste generated in urban areas in Vietnam increases by an average of 10-16% per year. The total volume of domestic solid waste generated in urban areas nationwide is 35,624 tons/day (13 million tons/year), accounting for 55% of the total volume of domestic solid waste in the country. Meanwhile, the volume of industrial solid waste nationwide is about 25 million tons/year.

The volume of industrial solid waste in some provinces in Vietnam in 2019 (tons/day)



Source: Ministry of Natural Resources and Environment

According to the plan for solid waste management and treatment in Binh Duong province to 2030, by 2025 Binh Duong will treat:

- 90% of total domestic solid waste in rural residential areas and 100% of solid waste from craft villages and production facilities must be collected and ensured to environmental standards, of which 75% will be collected, recycled, and reused.
- 100% of non-hazardous industrial solid waste generated will be collected and treated in an environmental manner, of which 90% will be recovered, recycled, and reused.
- 100% of urban waste is treated and collected according to environmental standards. In which, 90% is recycled, reused, recovered energy, or produced organic fertilizer.

According to the situation of the waste treatment sector in Vietnam, which still has a lot of room for development. Because of its previous expertise and technology, BWE has a lot of potentials to become an industry leader.



Source: Company data

For waste treatment and recycling, BWE has a waste recycling plant to make compost fertilizer named Con Voi with a capacity of 840 tons/day and a brick factory with a capacity of 2,000m2/day. day. Notably, BWE's recycled products from BWE's waste, which are bricks and fertilizers of BWE's Con Elephant brand, all meet ISO9001:2008 and ISO9001:2004 standards.

According to former Minister of Agriculture and Rural Development Nguyen Xuan Cuong, in 2019, the amount of organic fertilizer is modest compared to inorganic fertilizer (11.6% compared to 86.9%). In recent years, the government has completed important legal corridors from the Law on Cultivation, Decree 109/2018/ND-CP of the Government on organic agriculture, and Decree 108/2017/ND-CP on Fertilizer Management. The key point of the above legal documents is that they are oriented to encouraging the development of the application of organic fertilizers. Besides, Vietnam has about 15 million hectares of arable land annually with an average demand of about 80 million tons of organic fertilizer. From the above figures, it is easy to see the huge potential of this field.

In addition, BWE also researches and developments waste incinerator systems with different capacities to use and meet the demands of the market. BWE's incinerator system has been granted the National Standard Conformity Certificate. In particular, BWE also composts garbage to collect gas to serve the generator system with a capacity of up to 2,000kVA. BWE's waste-to-energy plants are powered by methane (CH4) from the waste treatment process. Thanks to this power source, BWE has saved nearly 20 billion VND in 2019.

Corporate development strategies via horizontal M&A promise a bright future.

BWE Chairman Nguyen Van Thien pronounced the company tries to maintain 35% of net income every year for investment and development funds. For new projects, the company always uses 51% of equity capital, 49% of bank loans for financing. For a defensive industry such as water supply, BWE is a rare company to have an aggressive strategy.

1. Acquisition of Can Tho Water Supply and Drainage and Water Supply Can Tho 2

In 2022, BWE and TDM announced that they had purchased a 48.86% stake in Can Tho Water Supply JSC 2 and a 24.64% stake in Can Tho Water Supply and Sewerage JSC (CTW). These two water companies had a 90% market share in tap water in Can Tho. Total capacity of the two companies of around 200,000 cbm/day, the non-revenue water rate of CTW was 14.6%, and CTW plans to remain at 15% in 2022. Revenue and net income of CTW in 2022 reached VND 233 billion and 29 billion, respectively. In the year 2022, CTW set net income targets at VND 28 billion.

Consequently, CT2 has revenue and profit in 2021 of VND 96 billion and VND 18.9 billion, respectively. In 2022, CT2 plans to reach VND 104 billion in revenue and VND 16.8 billion in net income. Considering the situation of two companies, BWE still has many problems to solve and helps these enterprises achieve better business efficiency.

2. Proposal Long Thanh water project

BWE proposes to Dong Nai People's Committee to implement the Long Thanh Water project to supply tap water for the urban areas around Long Thanh International Airport and other areas in Dong Nai province. If Dong Nai People's Committee is implemented, the Long Thanh water project will become the "backbone" axis that brings water from Dong Nai river to Long Thanh district through Bien Hoa city. In terms of capacity, BWE proposed capacity for the project to provide 60,000 cbm/day for the next 15-20 years. The project will be divided into 2 phases. Expectedly, the source of investment capital for phase 1 is VND 3,700 billion and the total project is VND 5,200 billion.

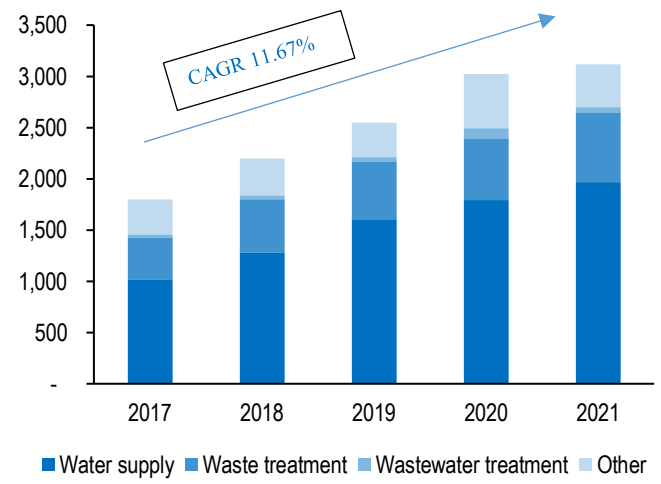
3. Double the capacity of Gia Tan Water Supply

Decision 3328 / QD-UBND issued September 16th, 2021 of the People's Committee of Dong Nai province assigns the task of Gia Tan Water Supply JSC to deploy clean water supply to 5 communes, Dau Giay town and surrounding areas (outside scope of water supply areas of Dong Nai Water Supply JSC). The project has a total investment of around VND 502 billion. In phase 1, by the end of 2022, the company will invest in building a new water supply system with a capacity of 20,000 cbm/day to double the existing capacity. In phase 2, by 2027, Company continue to invest in a system of 59,000 cbm/day to expand the total capacity of the plant to 99,500 cbm/day.

Business results and prospects of BWE

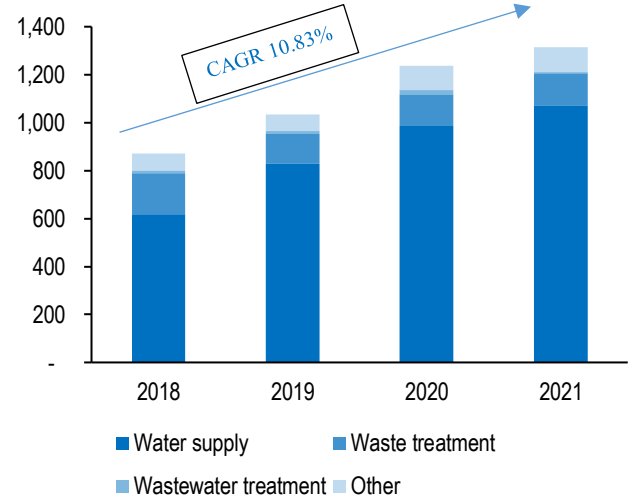
Business results

Doanh thu của BWE giai đoạn 2017-2021



Source: Company data, Shinhan Securities Vietnam

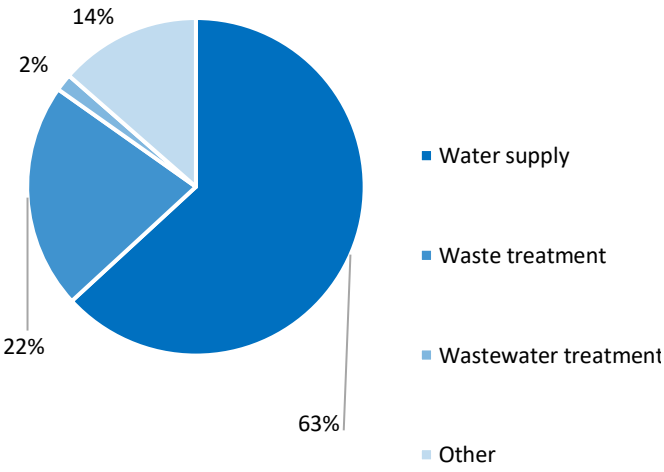
Lợi nhuận gộp của BWE giai đoạn 2017-2021



Source: Company data, Shinhan Securities Vietnam

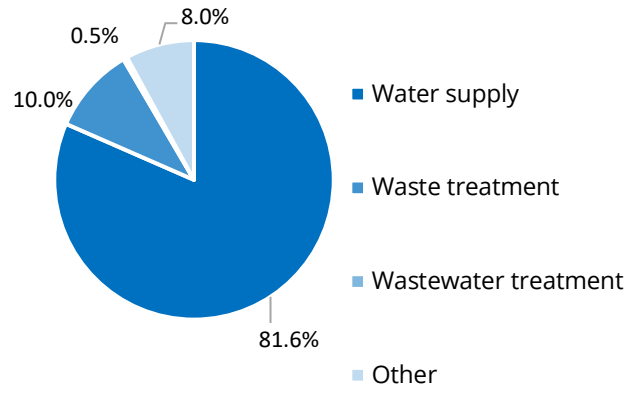
In 2021, BWE had VND 3,125 billion in revenue, equivalent to an increase of 4% compared to the previous year. Of which net profit reached VND 756 billion, up 40% YoY. During the period 2017-2021, BWE had a growth rate of revenue is 11.67% and gross profit is 10.83%.

Revenue structure BWE 2021



Source: Company data, Shinhan Securities Vietnam

Gross profit structure BWE 2021

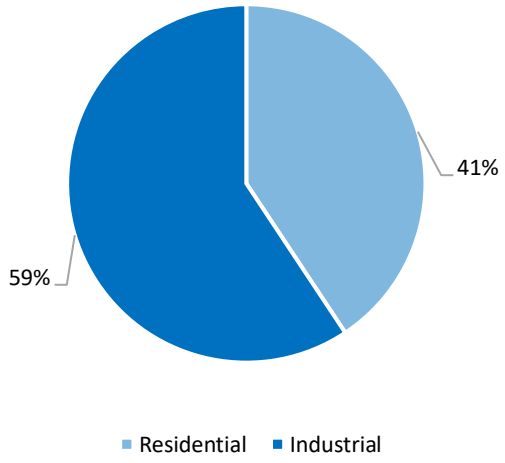


Source: Company data, Shinhan Securities Vietnam

In terms of revenue structure, 63% of net revenue comes from water supply and 22% from waste treatment.

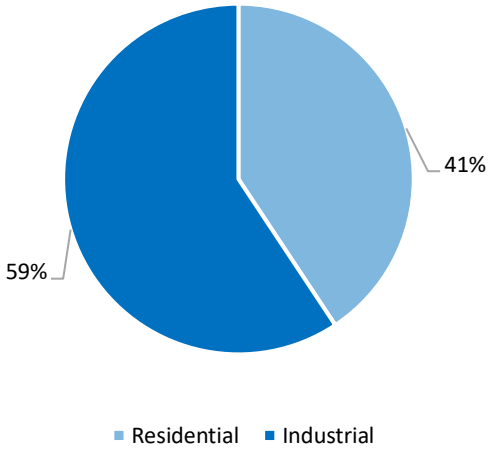
In terms of gross profit, 81.6% is contributed by water supply thanks to the high gross profit margin.

Water revenue structure 2021



Source: Company data, Shinhan Securities Vietnam

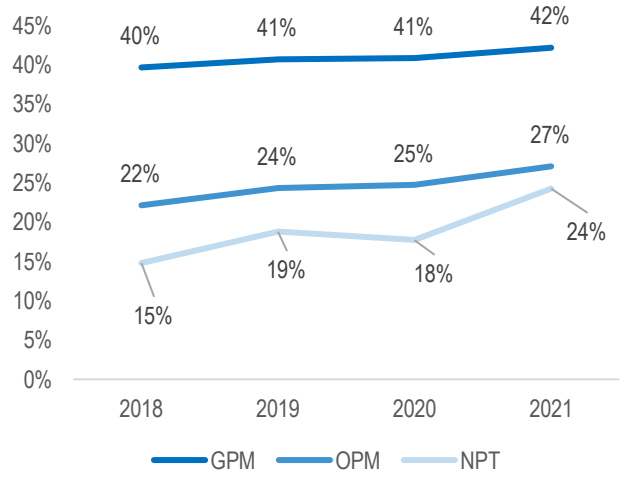
Volume water structure 2021



Source: Company data, Shinhan Securities Vietnam

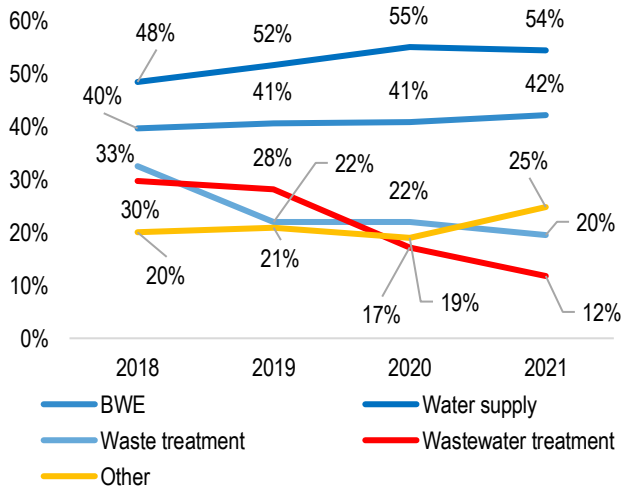
In the water revenue structure, the industrial customer contributes 59% of the revenue and uses 55% of the volume. Meanwhile, residential customers consume 45% of the volume and contribute 41% of the revenue. The reason for this difference is the different pricing policies between the two groups.

Profit margin of BWE



Source: Company data, Shinhan Securities Vietnam

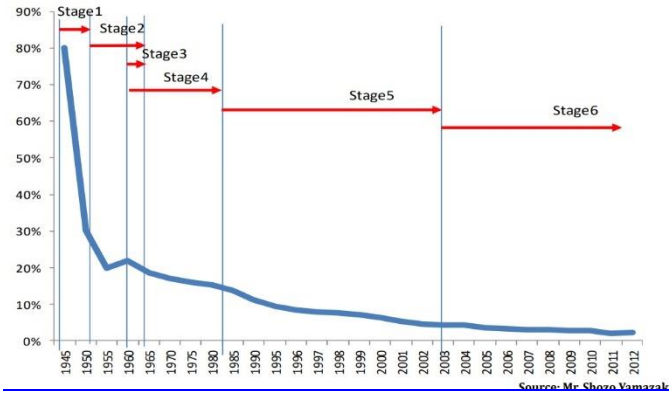
Gross profit margin by sector of BWE



Source: Company data, Shinhan Securities Vietnam

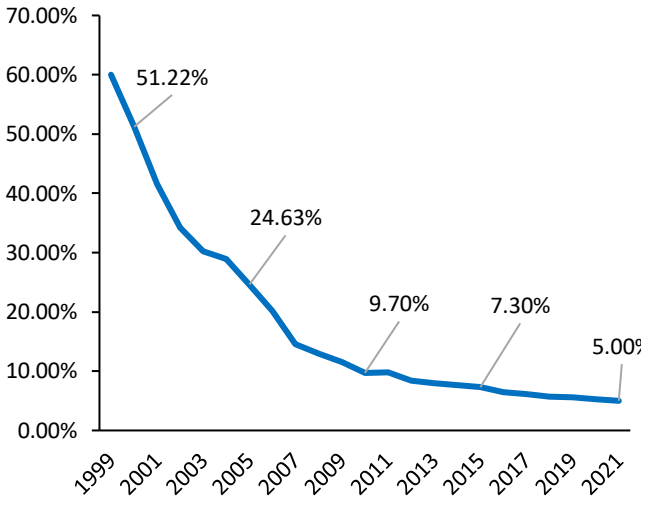
From 2018 to 2021, the gross profit margin of BWE was maintained from 40% to 42% thanks to the improvement in the profit margin of the water segment in the period 2018-2020 and the waste & wastewater segment. The water segment contributes over 80% of the gross profit, so BWE's profit margin is high compared to other companies in the market.

Non-revenue water rate in Japan 1945-2012



Source: Shozo Yamazaki, Japan International Cooperation Agency

Non-revenue water rate BWE 1999-2021



Source: Company data, Shinhan Securities Vietnam

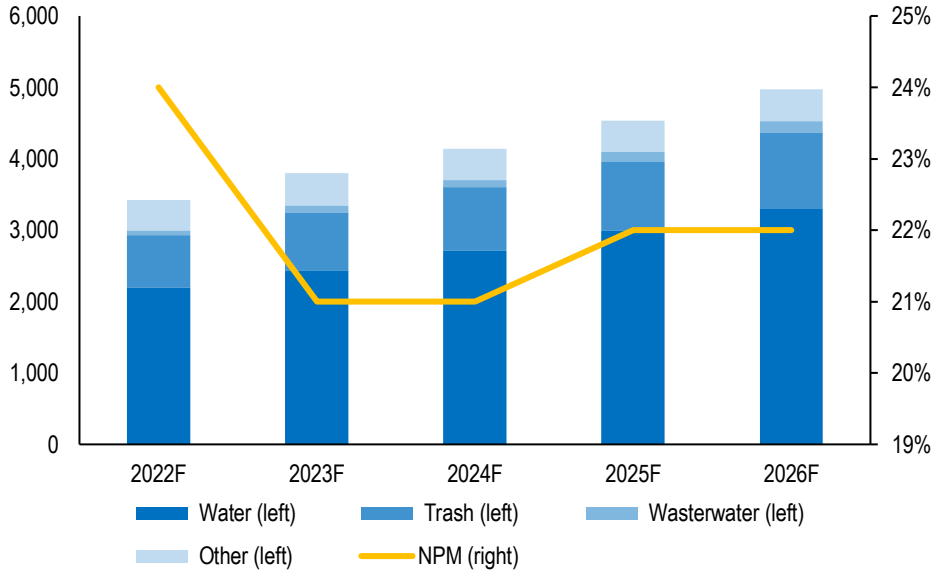
In 2019, BWE's Chairman of the Board of Directors Nguyen Van Thien overcame 60 other creative technical solutions to achieve the first prize of the Binh Duong Provincial Technical Innovation Contest VIII 2017-2019 with the topic: Prize Measures to reduce water leakage in Binh Duong Water - Environment Joint Stock Company. This contest is organized by the Union of Science and Technology Associations of Binh Duong province, in coordination with professional departments, organized by institutes and universities in South Vietnam.

Another reason for BWE is to maintain the high gross profit margin in the tap water supply segment thank to the low non-revenue water rate. By 2021, the water loss rate of BWE around 5%. Compared to other countries in the world, Japan had an improvement in the reduction of water loss from about 20% to 5% between 1960 and 2003. Meanwhile, NRW decreased from over 50% to 5% from 2001-to 2021. In Vietnam, Saigon Water Supply Corporation (SAWACO) is the water company with the largest capacity with 2.4 million cbm/day but with an NRW was 19.96%. Thanks to technological factors, BWE has high efficiency in production and business process.

Revenue foreast

BWE's revenue over the period 2022–2026F is expected to remain at a CAGR of 9.68%. A stable growth monopoly business model will be the launch pad for BWE to implement an M&A strategy.

Dự phóng doanh thu và biên lợi nhuận ròng (2022-2026F)



Source: Company data, Shinhan Securities Vietnam

Unit: VNDbn	2020	2021	2022F	2023F	2024F	2025F
Net Sales	3,119	3,427	3,798	4,103	4,490	4,915
Gross Profit	1,315	1,457	1,614	1,719	1,881	2,025
Operating profit	845	940	1,019	1,083	1,193	1,268
Net profit	750	787	842	918	982	1,051
Margin (%)						
GPM	42%	43%	43%	42%	42%	41%
OPM	27%	27%	27%	26%	27%	26%
NPM	24%	23%	22%	22%	22%	21%
Growth (%YoY)						
Sales	3%	10%	11%	8%	9%	9%
GP	6%	11%	11%	7%	9%	8%
OP	13%	11%	8%	6%	10%	6%
NP	40%	5%	7%	9%	7%	7%

Risk

Policy risk

Water price is one of the factors that impact the operating results of BWE. However, due to the government's pricing policy, BWE could not decide on this factor.

Risks from environment, upstream water

Raw water is one of the main factors determining the quality of tap water. Raw water for BWE comes from the Dong Nai River, Saigon River, and Phuoc Hoa Lake. Currently, the water source in these areas is still of good quality with large reserves. However, in the Saigon River area has appeared saline intrusion during drought seasons. At the moment, this risk remains under BWE's control.

Meanwhile, the industrialization process, as well as the impact of domestic waste, increasingly make the quality of upstream waters go down. In some areas that are industrialized too fast, groundwater sources have shown signs of pollution. For these sources of water, the company has to spend more money to ensure quality, which in turn reduces profit margins.

Risks from M&A activities

In recent years, BWE has actively M&A horizontally with many names, such as DNW, GIWACO, CT2, and CTW. These businesses still have their problems, BWE may fail in horizontal development is a major risk to consider.

Risk of non-revenue water

One of the biggest risks in the value chain of the tap water supply is the loss of water during distribution. The NRW of BWE (~5%) is very low when compared to the industry average, but the fact that the pipes are worn out or damaged is unavoidable. This makes BWE more fragile when very low water loss is already in place.

Appendix : Financial statements

Statement of financial position

Year to Dec. (bn VND)	2020	2021	2022F	2023F	2024F
Total assets	**8,246**	**9,074**	**9,313**	**9,941**	**10,438**
Current assets	2,459	2,719	2,944	3,647	4,246
Cash & equivalents	728	476	555	704	1,080
Short-term financial asset	337	600	788	1,120	1,210
Accounts receivable	773	945	866	1,008	1,063
Inventories	622	698	735	815	893
Non-current assets	5,787	6,355	6,369	6,294	6,192
Net fixed assets	2,679	3,253	2,921	2,631	2,313
Investment assets	720	981	1,243	1,262	1,253
Other long-term assets	2,388	2,121	2,205	2,401	2,626
Total liabilities	**4,836**	**5,149**	**5,349**	**5,795**	**6,108**
Current liabilities	1,987	2,008	1,992	2,182	2,255
Accounts payable	224	198	235	251	276
Short-term borrowings	1,281	1,211	1,152	1,246	1,243
Others	483	600	604	685	736
Non-current liabilities	2,849	3,141	3,358	3,613	3,852
Long-term borrowings	2,220	2,371	2,663	2,884	3,140
Other financial liabilities	629	770	695	729	712
Total shareholders' equity	**3,312**	**3,828**	**3,964**	**4,146**	**4,330**
Capital stock	1,875	1,929	1,929	1,929	1,929
Capital surplus	589	621	621	621	621
Other capital	440	625	625	625	625
Retained earnings	374	606	735	909	1,084
Non-controlling interest	34	47	54	62	71
*Total debt	3,501	3,582	3,815	4,130	4,383
*Net debt (cash)	2,436	2,506	2,472	2,306	2,093

Statement of comprehensive income

Year to Dec. (bn VND)	2020	2021	2022F	2023F	2024F
Net Revenue	**3,025**	**3,119**	**3,427**	**3,798**	**4,103**
Growth (%)	*18.8*	*3.1*	*9.9*	*10.8*	*8.0*
COGS	(1,789)	(1,804)	(1,971)	(2,184)	(2,384)
Gross profit	**1,236**	**1,315**	**1,457**	**1,614**	**1,719**
GPM (%)	*40.9*	*42.2*	*42.5*	*42.5*	*41.9*
SG&A	(489)	(470)	(517)	(595)	(636)
Operating profit	**747**	**845**	**940**	**1,019**	**1,083**
Growth (%)	*20.8*	*13.1*	*11.3*	*8.4*	*6.3*
OPM (%)	*24.7*	*27.1*	*27.4*	*26.8*	*26.4*
Non-operating profit	(151)	19	(45)	(60)	(39)
Financial income	42	110	79	93	107
Financial expense	(215)	(79)	(156)	(177)	(172)
In which: interest expenses	(156)	(155)	(167)	(186)	(204)
Net other non-operating	21	(12)	33	24	26
Pre-tax profit	**596**	**864**	**895**	**959**	**1,044**
Income tax	(61)	(109)	(101)	(109)	(118)
Net profit	**535**	**755**	**794**	**850**	**926**
Growth (%)	*12.0*	*41.3*	*5.0*	*7.0*	*9.0*
NPM (%)	*17.7*	*24.2*	*23.2*	*22.4*	*22.6*
Controlling interest	535	750	787	842	918
Non-controlling interest	0	7	7	8	9
EBIT	**752**	**1,018**	**1,062**	**1,145**	**1,248**
Growth (%)	*9.9*	*35.5*	*4.3*	*7.8*	*9.0*
EBIT Margin (%)	*24.8*	*32.7*	*31.0*	*30.1*	*30.4*
EBITDA	**1,218**	**1,503**	**1,568**	**1,666**	**1,784**
Growth (%)	*108.3*	*122.4*	*103.4*	*105.2*	*106.1*
EBITDA margin (%)	*40.3*	*48.2*	*45.8*	*43.9*	*43.5*

Statement of cash flow

Year to Dec. (bn VND)	2020	2021	2022F	2023F	2024F
Cash flow from operations	**1,145**	**891**	**881**	**1,049**	**1,284**
Net profit	535	756	794	850	926
Depreciation expense	466	484	506	521	537
(Gain) from investing activities	(156)	(155)	(167)	(186)	(204)
Change in working capital	219	(141)	(11)	(137)	(107)
Others	81	(53)	(241)	1	132
Cash flow from investments	**(1,888)**	**(1,081)**	**(779)**	**(925)**	**(862)**
Change in fixed assets	(1,732)	(770)	(292)	(517)	(436)
Change in investment assets	(101)	(142)	(300)	(221)	(261)
Others	(54)	(169)	(186)	(188)	(165)
Cash flow from financing	**1,391**	**(63)**	**(18)**	**26**	**(46)**
Change in equity	-	-	-	-	-
Net borrowing	1,642	226	281	354	282
Dividends	(251)	(289)	(299)	(328)	(328)
Change in total cash	**649**	**(253)**	**84**	**149**	**376**
Beginning cash	74	723	470	555	704
Change in FX rates	5	6	(0)	(0)	(0)
Ending cash	728	476	555	704	1,080

Source: Company data, Shinhan Securities Vietnam

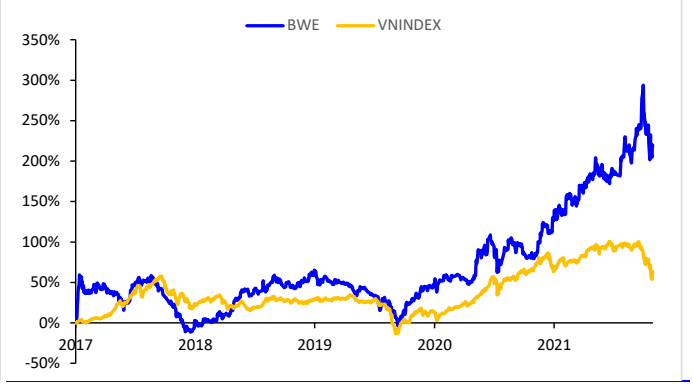
Key ratios

Year to Dec.	2020	2021	2022F	2023F	2024F
EPS (VND)	2,854	3,886	4,077	4,363	4,756
BPS (VND)	17,662	19,840	20,547	21,492	22,446
DPS (VND)	800	1,166	1,300	1,500	1,550
PER (x)	12.3	15.5	8.6	9.4	8.4
PBR (x)	3.1	3.0	2.8	2.7	2.6
EV/EBITDA (x)	10.58	8.80	8.73	8.56	7.89
Dividend payout ratio (%)	25%	26%	28%	32%	30%
Dividend yield (%)	1.59	2.32	2.59	2.99	3.09
Profitability					
EBITDA margin (%)	40.3	48.2	45.8	43.9	44.1
OPM (%)	24.7	27.1	27.4	26.8	27.0
NPM (%)	17.7	24.2	23.2	22.4	23.1
ROA (%)	7.4	8.7	8.6	8.8	9.3
ROE (%)	19.8	21.2	20.4	21.0	22.3
Stability					
Debt to equity ratio (%)	105.7	93.6	96.2	99.6	101.0
Net debt to EBITDA ratio (%)	200.0	166.8	157.6	138.4	114.3
Cash ratio (%)	53.6	53.6	67.4	83.6	102.6
Interest coverage ratio (x)	4.8	6.6	6.4	6.1	6.2
Activity (%)					
Working capital turnover	5.1	3.9	3.1	2.4	2.0
Inventory turnover (days)	2.7	2.5	2.5	2.6	2.5
Receivable turnover (days)	3.8	3.6	3.9	3.9	3.9

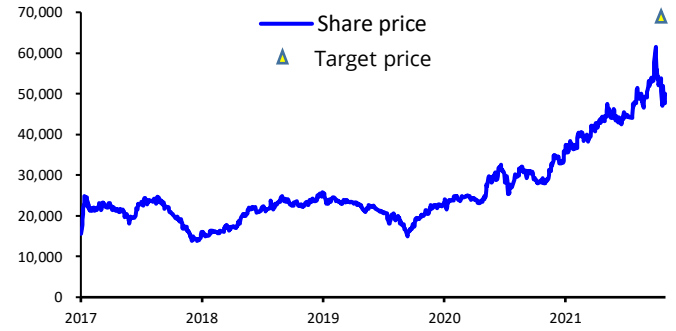
Source: Company data, Shinhan Securities Vietnam

Binh Duong Water Environment JSC (BWE VN)

Share performance



Target price



Date	Rating	Target price (VND)	Target price gap (%) Average	Max/Min
06/17/2022 (Initiate)	BUY	63,200	(2.92)	(10.12)/8.10

Note: Calculation of tarrget price gap based on past 6 months

Shinhan Securities Vietnam

Cổ phiếu	Ngành
◆ **BUY**: Expected 12-month gain of 20% or more ◆ **Trading BUY**: Expected 12-month gain of 15% to 20% ◆ **OLD:** Expected 12-month gain of 15% to loss of -15% ◆ **REDUCE**: Expected 12-month loss of 15% or more	◆ **OVERWEIGHT**: Based on market cap, largest share of sector stocks under coverage is rated BUY ◆ **NEUTRAL:** Based on market cap, largest share of sector stocks under coverage is rated Trading BUY or HOLD ◆ **UNDERWEIGHT**: Based on market cap, largest share of sector stocks under coverage is rated SELL

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