



Water Sector

Sector Update

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Residential segment to support volume growth

Volume continues to grow, supporting BWE and TDM's 2023 profit. This growth will be led by strong residential water demand. We lower our projected 2023 volume growth for BWE from 12% YoY to 7% YoY, which is driven by 9% YoY residential water volume growth and 5% YoY industrial water volume growth. For TDM, we raise our projected 2023 volume to 79 million cbm (+13% YoY) following its 2022 results that beat our expectations. We attribute the stronger volume growth for TDM vs BWE in 2022-2023 to 1) TDM being impacted more severely compared to BWE in 2020-2021, and 2) TDM's major water plants being in the most populated industrial hub of Binh Duong Province (Di An District), which faces less risk of an economic slowdown compared to other districts.

BWE to acquire a 20%-100% stake in four water companies in Long An Province and one water company in Quang Binh Province, providing potential upside to our valuation. On February 8, BWE announced a BOD resolution to acquire a 20%-100% stake of DNP Long An Water Infrastructure JSC (Long An Water), which possesses the Nhi Thanh water processing plant (capacity of 60,000 cbm/day) and has secured land bank to double its capacity to 120,000 cbm/day — ~15% of BWE's capacity. According to BWE, Long An Water has a ~50%-60% market share. The price and timeline for this acquisition have not been specified. On February 10, BWE announced it would acquire 50%-100% stakes in four additional water companies in order to consolidate revenue and profit when these deals are successful. These companies include three in Long An Province (Chau Thanh Urban Construction JSC, Can Giuoc Urban Construction JSC and Bang Tam Water & Environment JSC) and one in Quang Binh Province (DNP Quang Binh Water Infra JSC). Additional details about these acquisitions were not disclosed. The acquisitions are in line with BWE's strategy to expand its water business beyond southeastern Vietnam to the southwestern and central regions. According to BWE, Long An's water industry has bright prospects from rapid urbanization and population growth, increasing frequency of drought and saltwater intrusion leading to strong demand for clean water, and a projected 2020-2030F CAGR of 5%. In addition, BWE expects that industrial water demand could double over the next 10 years.

We lower our target price for BWE by 2% to VND50,700/share and downgrade our rating from BUY to OUTPERFORM as the company's share price has increased 35% over the past three months. Our lower TP is due to a 4% decrease in our aggregate earnings forecast in 2023-2027F following our lower water volume assumption.

We raise target price for TDM by 1% to VND44,600/share and maintain BUY rating. Our higher TP is due to a 2% increase in 2023-2027F aggregate NPAT forecast given higher projected volume.

Figure 1: Water companies – Key data

Code	Rating	Market Cap USD mn	State O'ship %	Foreign Limit %	Foreign Avail USD mn	ADTV 30D USD mn	Share price VND ps	Target price, VND ps	Target price, updated	Upside %	Div yield %	12M TSR %
BWE	O-PF	384	19%	50%	128	0.3	46,500	50,700	2/14/2023	9.0%	2.6%	11.6%
TDM	BUY	155	0%	50%	53	0.2	36,500	44,600	2/14/2023	22.2%	3.3%	25.5%

Figure 2: Water companies – Summary valuations, based on reported NPAT

Code	Share price, VND ps	EPS g 2022 %	EPS g 2023F %	EPS g 2024F %	P/E TTM (x)	P/E 2022 (x)	P/E 2023F (x)	P/E 2024F (x)	EV/ EBITDA 2023F (x)	ROE 2023F %	P/B LQ (x)	Net D/E LQ %
BWE	46,500	-0.8%	14.7%	50.3%	13.4x	13.4x	12.7x	8.4x	7.3x	17.9%	1.6	63.3%
TDM	36,500	-32.9%	39.3%	25.9%	18.0x	18.0x	12.9x	10.3x	7.2x	15.4%	1.7	12.9%

Source: Bloomberg, VCSC (data as of February 13, 2023)

Industry Update

Binh Duong Province set its 2023 GRDP target slightly higher than that of 2022

Binh Duong's 2022 GRDP increased 8.3% YoY as all three main sectors of the economy performed strongly. Specifically, the agricultural sector rose 3.1% YoY, the industrial-construction sector rose 8.2% YoY and the services sector rose 9.5% YoY.

Provincial leaders set 2023 targets for GRDP to increase 8.5%-8.7% YoY and the Index of Industrial Production (IIP) to rise 8.9% YoY. Core tasks in 2023 include progressing with a modern provincial road transport infrastructure network and facilitating interregional connections. The focus is on the Ring Road No. 3 project, the HCMC – Thu Dau Mot - Chon Thanh – Binh Phuoc Expressway, the Bau Bang – Cai Mep (Vung Tau) railway and the Song Than Intersection.

An all-time high amount of high public investment in 2023 will accelerate key infrastructure projects. According to the provincial People's Committee's statement on February 7, Binh Duong Province has been assigned to disburse nearly VND21.8tn (USD909million) of public investment capital in 2023. In January 2023, the public investment index jumped 63.6% YoY to VND545bn to boost investment in major transport projects.

According to the General Statistics Office of Vietnam, Binh Duong's socioeconomic indicators were weak in January 2023 as IIP slumped 11.2% YoY, which was mainly due to a lower amount of industrial activities during the Tet Holiday. Meanwhile, the total retail sales of good & services in January 2023 increased 14.1% YoY to VND25tn, which was driven by higher consumption demand. Furthermore, 86% of laborers returned to work in Binh Duong Province after Tet as 87% of enterprises commenced reoperation. However, the employment index declined by 0.5% YoY primarily due to fewer workers in the State-owned business sector (-15.5% YoY); non-state businesses fell by 3.9% and FDI enterprises rose by 0.7%.

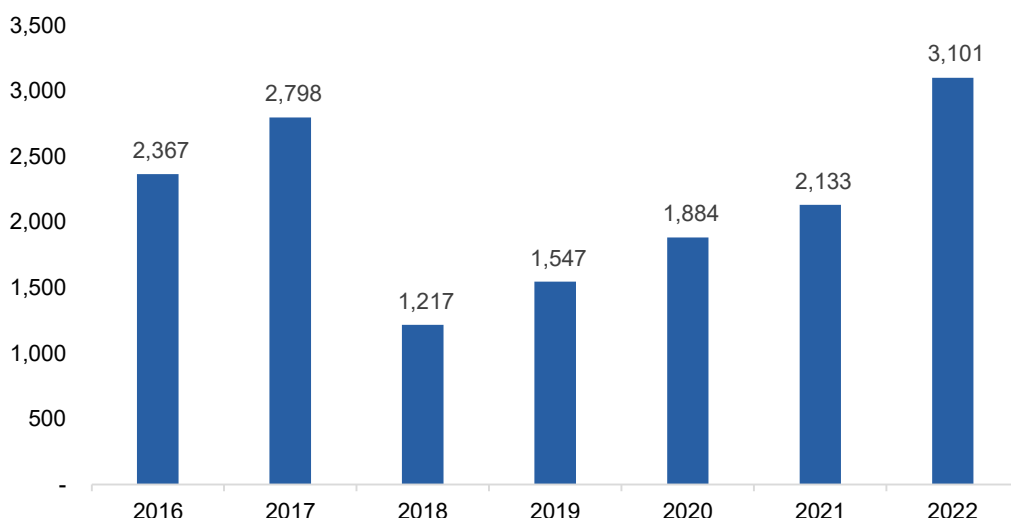
Binh Duong is among Vietnam's top five provinces for attracting new FDI registrations over the past five years and has one of the largest industrial zones in Vietnam.

Binh Duong ranked second among provinces in FDI attraction nationwide with 2022 FDI inflows of USD3.1bn (+48.8% YoY) thanks to large-scale investment projects of LEGO (total capital of USD1.3bn) and Pandora Group (capital expenditure of more than USD100mn).

In the long term, we expect Binh Duong's industrial water demand will improve due to the rapid expansion of industrial production as new industrial parks come into operation in 2022-2025F, including the Vietnam Singapore Industrial Park (VSIP) III (1,000 ha) in Tan Uyen District and Cay Truong Industrial Park (1,000 ha) in Bau Bang District.

We expect population growth and migration will increase Binh Duong's residential water demand, particularly in HCMC's suburbs like Di An Ward. In June 2022, the National Congress issued an investment approval for the 76-km Ring Road No. 3 project that will connect HCMC with Dong Nai, Long An and Binh Duong province. Binh Duong Province targets to commence construction by April 30, 2023, to ensure the progress of the project.

Figure 3: Registered FDI in Binh Duong Province (USD mn)



Source: Ministry of Planning and Investment (MoPI), VCSC

Furthermore, we believe residential and industrial water demand in Long Thanh Ward, Dong Nai Province will increase significantly when Long Thanh International Airport is put into operation, indicating that BWE and TDM's Long Thanh Highway water project should be approved by 2023 in order to meet the escalating demand. According to the Airports Corporation of Vietnam (ACV), although the land clearance progress for the construction site had been 98% completed as of November 2022, the project has fallen behind schedule due to not having a contractor for the passenger terminal package. As a result, ACV is reviewing the project's requirements to reopen the bidding procedures so that the airport's first phase would be put into operation by 2025 as scheduled.

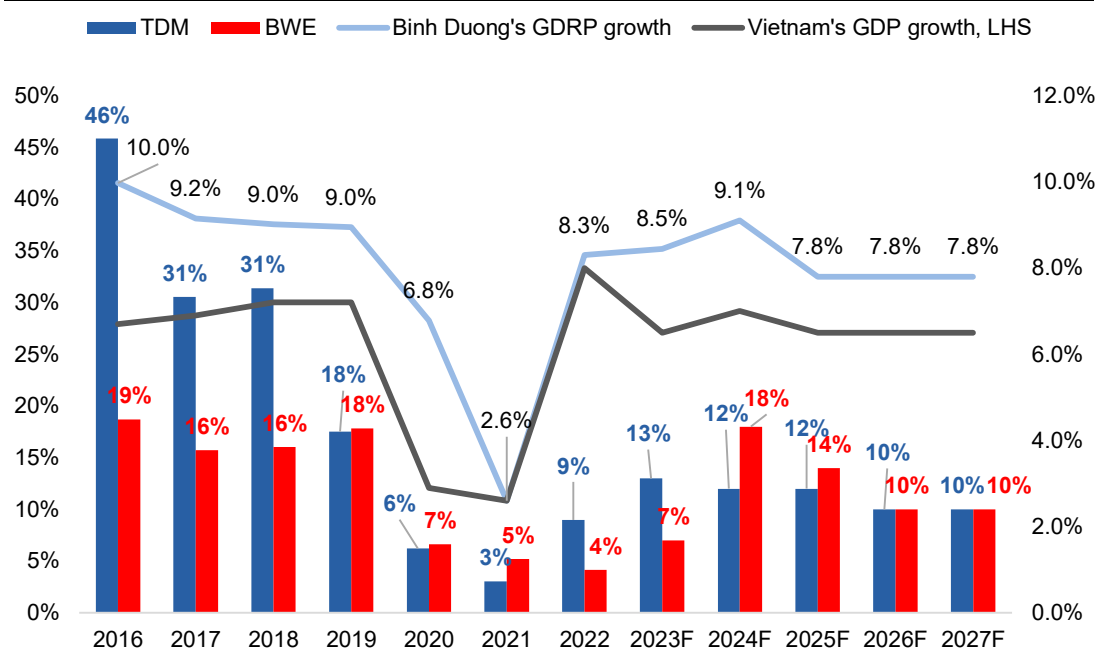
We believe these infrastructure projects will support industrial development and facilitate intracity mobility over the long term. These factors should in turn establish a new driving force for socioeconomic growth and further increase population migration to Binh Duong and Dong Nai provinces — where BWE and its associates operate.

Binh Duong Province water demand outlook

Although we expect double-digit volume growth in 2024-2027F thanks to the potential acceleration of population migration and industrial development in Binh Duong Province, we lower our projected 2023 volume growth for BWE from 12% YoY to 7% YoY. This assumption is driven by strong residential water volume growth of 9% YoY and industrial water volume growth of 5% YoY. In our view, industrial water demand will weaken in H1 2023 but then recover in H2 2023 thanks to the recovery of water-consuming sectors like the wood processing and textile industries — in addition to a new contribution from industrial clients in the Minh Hung Industrial Park. In 2022, BWE's water volume grew only 4% YoY (vs our previous estimate of 8% YoY) as industrial water demand in 2022 was weak (+0.1% YoY), implying a slowdown in manufacturing activities; meanwhile, residential water demand increased 8.6% YoY in 2022.

For TDM, we raise our projected 2023 volume to 79 million cbm (+13% YoY) after its 2022 results beat our expectations. We attribute the stronger volume growth for TDM vs BWE in 2022-2023 to 1) TDM being impacted more severely compared to BWE in 2021, and 2) TDM's major water plants being in the most populated industrial hub of Binh Duong Province (Di An Province), which faces less risk of an economic slowdown compared to other districts.

Figure 4: Binh Duong water demand vs GRDP



Source: TDM, BWE, Binh Duong provincial authorities, VCSC

BWE plans M&A with DNP Long An Water JSC

On February 8, BWE announced a BOD resolution to acquire a 20%-100% stake of DNP Long An Water Infrastructure JSC (Long An Water), which possesses the Nhi Thanh water processing plant (capacity of 60,000 cbm per day) that provides water for industrial parks in Long An Province. Long An Water has also secured enough land bank to double its capacity to 120,000 cbm/day — ~15% of BWE's capacity. According to BWE, Long An Water has a ~50%-60% market share. The price and timeline of this acquisition have not been specified.

On February 10, BWE announced it would acquire 50%-100% stakes in four other water companies in order to consolidate revenue and profit when these deals are successful. These companies include three in Long An Province (Chau Thanh Urban Construction JSC, Can Giuoc Urban Construction JSC and Bang Tam Water & Environment JSC) and one in Quang Binh Province (DNP Quang Binh Water Infra JSC). Further details were yet disclosed.

These acquisitions are in line with BWE's strategy to expand its water business beyond southeastern Vietnam to southwestern and central Vietnam.

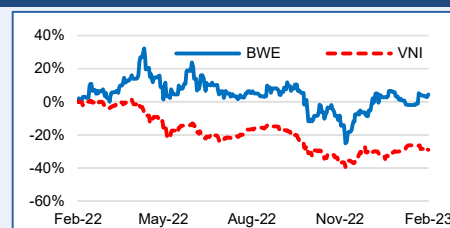
Potential of water industry in Long An Province: Long An is among Vietnam's top five provinces for attracting FDI registrations over the past five years. In 9M 2022, the province had 43 projects with a total capital registered of more than USD307mn, demonstrating that it is a promising investment hub in southern Vietnam. The province currently has 16 industrial parks and 22 industrial clusters — the industrial parks have a total area of 2,905 ha and roughly 92% occupancy rate. With the geographical competitive advantage of being a gateway linking HCMC to the Mekong Delta region, the province has attracted a significant amount of investment — especially in the food processing, textile and garment industries and most recently in green energy projects.

Solid water consumption demand — especially for industrial parks in 2020-2030F. The water industry in Long An Province possesses positive prospects from rapid urbanization and population growth, increasing frequency of drought and saltwater intrusion leading to high demand for clean water, and a projected 2020-2030F CAGR of 5% (per BWE's guidance). Moreover, the expansion of industrial zones in the province over the next 10 years will be linked with escalating water demand — especially as high water-consuming industries account for a majority of businesses in Long An Province. It is estimated that industrial water demand could double over the next 10 years.

BIWASE (BWE) [OUTPERFORM +11.6%]

Update Report

Industry:	Utilities		2022	2023F	2024F	2025F
Report Date:	February 14, 2023	Rev YoY	11.7%	4.9%	14.9%	13.2%
Current Price:	VND46,500	EPS YoY	-0.8%	14.7%	50.3%	30.9%
Target Price:	VND50,700	Core EPS YoY*	13.5%	6.9%	50.3%	30.9%
Last Target Price:	VND51,800	NPAT (VND bn)	743	852	1,280	1,675
Upside to TP:	+9.0%	EV/EBITDA	8.5x	7.3x	5.4x	4.0x
Dividend Yield:	<u>2.6%</u>	P/E	13.4x	12.7x	8.4x	6.4x
TSR:	+11.6%	DPS (VND)	1,300	1,400	1,500	1,600



Market Cap:	USD384mn		<u>BWE</u>	<u>Peers</u>	<u>VNI</u>
Foreign Room:	USD128mn	P/E (ttm)	13.4x	18.6x	13.8x
ADTV30D:	USD0.3mn	P/B	1.6x	1.3x	1.7x
State Ownership:	19%	Net D/E	63.6%	53.3%	N/A
Outstanding Shares:	193 mn	ROE	17.6%	8.1%	14.3%
Fully Diluted Shares:	193 mn	ROA	7.8%	4.0%	2.2%
PEG 3-Year	0.4	(*) Excluding non-core; (**) Four-year median of regional peers			

Company Overview

BWE is the second largest water distribution company in Vietnam and had a capacity of 750,000 cbm per day as of 2020. BWE offers a full environmental value chain from water generation and distribution (80% of gross profit) to wastewater treatment. BWE is also active in waste treatment, funeral services and rooftop solar.

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Earnings to rebound from 2022's low base

- We trim our target price for BWE by 2% to VND50,700/share following a 4% cut in our aggregate 2023-2027F earnings forecast. Additionally, we downgrade our rating from BUY to OUTPERFORM as BWE's share price has increased ~30% over the past three months.
- We reduce our 2023-2026F NPAT forecast due to our lower industrial volume assumption, which is partly offset by our lower interest expense forecast as interest expenses in 2022 completed 84% of our previous projection.
- We forecast 2023F reported NPAT growth of 15% YoY due to (1) 8% YoY NPAT growth from the water segment, (2) an upbeat performance from the waste treatment segment as we maintain a 10% YoY higher residential waste treatment tariff assumption and (3) lower forex losses YoY.
- BWE's valuation looks attractive at a 2023F P/E of 12.7x and implied PEG of 0.4 based on a projected 2022-2025F EPS CAGR of ~30%.
- Upside catalyst: Successful M&A with Long An water companies. Downside risk: Lower-than-expected sales volume if there is a disappointing amount of manufacturing activity.

We expect 2023F sales volume to rise 7% YoY. We lower our projected 2023 volume growth for BWE from 12% YoY to 7% YoY, which is driven by 9% YoY residential water volume growth and 5% YoY industrial water volume growth. In our view, industrial water demand will weaken in H1 2023 but then recover in H2 2023 thanks to the recovery of high water-consuming sectors like the wood processing and textile industries, in addition to a new contribution from industrial clients in the Minh Hung Industrial Park. In 2022, BWE's water volume rose only 4% YoY (vs our previous estimate of 8% YoY) as industrial water demand (+0.1% YoY) was weak in 2022, implying a slowdown in manufacturing activities; meanwhile, residential water demand increased 8.6% YoY.

BWE plans M&A with DNP Long An Water JSC. On February 8, BWE announced a BOD resolution to acquire a 20%-100% stake of DNP Long An Water Infrastructure JSC (DNP Long An Water), which possesses the Nhi Thanh water processing plant with a capacity of a 60,000 cbm per day that provides water for industrial parks in Long An Province. DNP Long An Water has also secured enough land bank to double its capacity to 120,000 cbm/day — ~15% of BWE's capacity. According to BWE, Long An Water has a ~50%-60% market share. The price and timeline of the acquisition have not been specified. We believe a successful M&A with a reasonable acquisition price will add value to BWE. The water industry in Long An Province has positive prospects from rapid urbanization and population growth, increasing frequency of drought and saltwater intrusion leading to strong demand for clean water, and a projected 2020-2030F CAGR of 5% (per BWE's

guidance). Moreover, BWE expects that industrial water demand could double over the next 10 years.

2022 Recap: High profit from water segment to help core earnings rise 14% YoY

Figure 5: BWE's 2022 results (VND bn)

VND bn	Q4 2022	YoY Growth	2022	YoY Growth	% of VCSC's forecast	VCSC's comments on 2022 results
Water sales volume (million cbm)	46	0%	181	4%	96%	Lower-than-expected sales volume due to the sluggish recovery of key manufacturing industries in Q4 2022.
Revenue	1,043	3%	3,483	12%	100%	
Water supply	548	5%	2,159	10%	96%	
Waste treatment	273	-26%	707	5%	110%	
Wastewater treatment	32	403%	151	195%	92%	
Trading and others	191	65%	467	11%	111%	Including mineral water, water pipeline & material trading and rooftop solar.
COGS	-706	12%	-2,062	15%	104%	
Gross profit	337	-12%	1,421	8%	96%	
Water supply	266	0%	1,136	6%	97%	
Waste treatment	34	-63%	113	-14%	81%	
Wastewater treatment	7	N.M.	39	549%	139%	Due to a newly advanced wastewater treatment system that was put into operation in Q4 2022.
Trading and others	30	6%	133	27%	91%	
SG&A expenses	-142	0%	-502	7%	95%	
Operating profit	195	-19%	919	9%	96%	
Financial income	22	-37%	104	-5%	73%	
Financial expenses	-35	659%	-226	185%	78%	
In which: Interest expenses	-48	25%	-170	10%	84%	
Share profit from associates	7	78%	18	124%	N.M.	Including shared profit from Chanh Phu Hoa JSC and a loss from GIWACO.
Other income/loss	10	33%	23	N.M.	N.M.	
Profit before tax	199	-30%	838	-2%	103%	
NPAT before MI	170	-30%	747	0%	101%	
NPAT after MI	168	-31%	743	-1%	102%	Flat YoY NPAT is due to higher financial expenses resulting from USD/VND appreciation and higher interest expenses, which offset core NPAT growth.
Core NPAT *	155	-28%	798	14%	98%	Mainly due to solid earnings growth from the water segment that outweighed the weak results of the waste treatment segment.
Water supply	117	-2%	582	10%	106%	
Waste treatment	1	-98%	13	-75%	20%	Due to higher depreciation expenses from new waste treatment systems.
Wastewater treatment	2	N.M.	19	N.M.	81%	
Trading & others	34	18%	185	47%	103%	Huge profits from water pipeline & material trading in 9M 2022 thanks to high steel prices and low costs.

Source: BWE's financial statements, VCSC forecast. (*) Excluding provision/reversal provision expenses for financial investments and unrealized forex loss.

2023 Outlook: Strong growth of waste segment; resilient residential water demand

Figure 6: BWE's 2023 outlook (VND bn)

VND bn	2022	2023F Revised	YoY Growth	2023F Revised vs Previous	VCSC's comments for: (1) Revised vs previous forecast (2) 2023F vs 2022F
Water sales volume (million cbm)	181	194	7%	-8%	(2) Driven by 9% YoY residential water volume growth and 5% YoY industrial water volume growth. In our view, industrial water demand will be weak in H1 2023 but then gradually recover in H2 2023 thanks to the recovery of water-consuming sectors like the wood processing and textile industries.
Revenue	3,484	3,653	5%	-4%	
Water supply	2,159	2,305	7%	-8%	
Waste treatment	707	718	2%	-2%	* We forecast sales volume growth of 10% YoY and 10% YoY growth of the residential waste segment, the latter of which is mainly driven by rising demand for residential waste treatment due to the increased disposal of facemasks and e-commerce packaging.
Wastewater treatment	151	164	8%	0%	
Trading and others	467	467	0%	11%	* Including mineral water, water pipeline & material trading and rooftop solar.
COGS	-2,063	-2,157	5%	-2%	
Gross profit	1,421	1,496	5%	-8%	
Water supply	1,136	1,163	2%	-11%	
Waste treatment	113	162	43%	-18%	(2) Due to a 2022's low base as there were higher-than-expected depreciation expenses. In addition, we expect GPM of the waste treatment segment to improve thanks to a 10% YoY increase in the waste treatment tariff, electricity cost savings and higher sales volume.
Wastewater treatment	39	41	4%	46%	(1) Due to higher efficiency from the new wastewater treatment system that was put into use in Q4 2022.
Trading and others	133	131	-2%	25%	
SG&A expenses	-502	-520	3%	-8%	
Operating profit	919	976	6%	-9%	
Financial income	104	179	71%	0%	
Financial expenses	-226	-232	3%	-12%	(1) Due to a lower interest expense assumption. (2) Lower projected forex losses.
In which: Interest expenses	-170	-221	29%	-13%	
Share profit from associates	18	19	5%	N.M.	
Other income/loss	23	1	N.M.	0%	
Profit before tax	838	943	13%	-5%	
NPAT after MI	743	852	15%	-4%	(1) We reduce our projected water sales volume as the industrial segment is recovering slower than expected. (2) Driven by water supply segment NPAT growth of 8% YoY and upbeat performance from the waste treatment segment.
Core NPAT *	798	852	7%	-4%	
Water supply	582	629	8%	-10%	
Waste treatment	13	86	555%	-25%	(2) Thanks to a 10% YoY increase in the waste treatment tariff and electricity cost savings.
Wastewater treatment	19	21	10%	-10%	
Trading & others	185	116	-37%	127%	(2) Earnings from water pipelines & materials to normalize due to there not being any low-cost inventory.

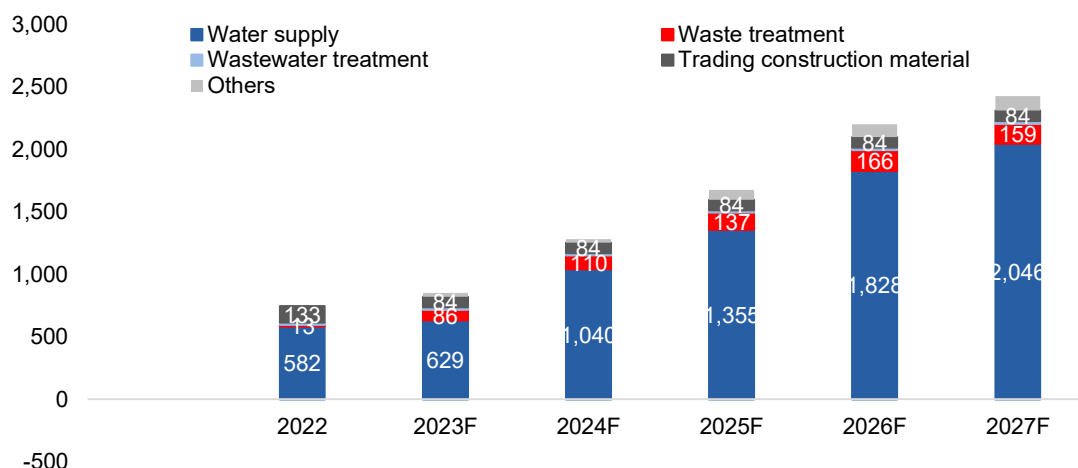
Source: VCSC forecasts. (*) Excluding provision/reversal provision expenses for financial investments and unrealized forex loss.

Long-term outlook across segments

We reduce our aggregate 2023-2027F earnings forecast by 4% as we lower our water sales volume assumptions. This is partly offset by lower projected interest expense.

We forecast an NPAT CAGR of ~30% in 2022-2025F, which is mainly due to (1) robust water volume growth of 7%-18% p.a., (2) a 3% p.a. water tariff increase starting in 2024F, (3) electricity cost savings thanks to new rooftop solar capacity at water plants (BWE installed 4.6 MWp in 2021 and targets to have 35 MWp by 2025), and (4) 5 MW and 10 MW of thermal power capacity installed in the waste treatment segment in 2022 and 2023, respectively, that will also help to lower electricity costs. We have incorporated depreciation/interest expenses and capex for this new power capacity. The electricity cost savings from this power capacity is larger than associated costs, which partly helps to contribute additional earnings. In addition, we expect the tariff for the residential waste to increase 10% in 2023 as there is higher demand from this segment.

Figure 7: NPAT breakdown by segment (VND bn)



Source: BWE, VCSC forecast

Valuation

We continue to evaluate BWE using a 100% discounted cash flow (DCF) valuation model as we believe it fully captures the intrinsic value of the business and is the most accurate method to assess the stable cash flow of utilities companies. We also incorporate BWE's water operations in Can Tho and Dong Nai Province, including its ownership interests in Can Tho Water Company (valued using the P/B method), GIWACO (valued by DCF method), and Dong Nai Water JSC (UPCoM: DNW — valued by DCF method).

We keep a 10% valuation discount for policy risk, which is a typical risk in heavily regulated industries. This discount is less than the 15% discount rate we apply to power stocks. Compared to electricity rates — which are mostly established by Government bodies & ministries and are sensitive to national economic growth — water tariffs in Vietnam are more subject to policy and systemic risks because they are primarily set by provincial authorities. In the past, water rates in a number of Vietnamese cities and provinces have remained unchanged or have slightly increased. Nevertheless, power plants occasionally undergo a review regarding power purchase agreements, which lowers the cost of electricity.

In this Update Report, we cut our target price by 2% to VND50,700/share due to a 4% cut in our 2023-2026F earnings forecast.

Figure 8: BWE's valuation (DCF) (VND/share)

Method	Fair value	Weight	Target price (VND/share)
DCF of BWE's core business	48,007	100%	48,007
18% stake in Dong Nai Water (DNW)			3,502
32% stake in Gia Tan Water (GIWACO)			1,753
24-49% stake in Can Tho water companies			3,119
Fair value			56,381
Discount (%)			10.0%
Target price			50,700
Upside %			9.0%
Dividend yield %			2.6%
TSR %			11.6%
2023 P/E at TP (x)			13.8x

Source: VCSC forecast

Figure 9: DCF valuation

Cost of Capital	Previous	Revised	FCFF (Five Years)	VND bn
Beta	1.0	1.0	PV of Free Cash Flows	5,192
Market Risk Premium %	8.0%	8.0%	PV of Terminal Val (1% g)	6,985
Risk-free Rate %	6.0%	6.0%	PV of FCF and TV	12,176
Cost of Equity %	14.0%	14.0%	+ Cash & ST investments	1,147
Cost of Debt %	7.5%	7.5%	- Debt	-4,018
Debt %	49.1%	49.1%	- Minority Interest	-44
Equity %	50.9%	50.9%	Equity Value	9,262
Corporate Tax Rate %	10.2%	10.2%	Shares (million)	193
WACC %	10.4%	10.4%	Value per share, VND	48,007

Source: VCSC forecast

We note the corporate tax rate is 10%, which is lower than the statutory rate. In accordance with Circular 78/2014/TT-BTC of the Ministry of Finance (dated June 18, 2014), BWE's business segment is classified as a special business segment that is eligible for a favorable tax rate. As a result, BWE will have a tax rate of 10% for its current business model.

Figure 10: Cash flows (VND bn)

(VND bn)	2022	2023F	2024F	2025F	2026F	2027F
EBIT & Dividend	954	1,018	1,432	1,772	2,298	2,508
less: tax	-78	-88	-135	-179	-238	-262
add: depreciation	479	564	562	589	252	274
less: net capex	-874	-399	-400	-400	-400	-1,100
(increase) / decrease in NWC	-152	-32	-145	-166	-92	-223
Free Cash Flow	328	1,063	1,314	1,615	1,821	1,197
Present Value of FCF		963	1,077	1,199	1,224	729
Cumulative PV of FCF		963	2,040	3,239	4,463	5,192

Source: VCSC forecast

Figure 11: BWE's capex guidance for 2021-2023

Projects	Investment capital (VND bn)
Expanding water supply capacity	900
Expanding distribution system for Nam Tan Uyen and Uyen Hung plants	132
Expanding distribution system for Tan Hiep plants	275
Total	1,307

Source: BWE, VCSC

Valuation of Can Tho water companies

According to BWE, it spent ~VND300bn to acquire the Can Tho water companies; their implied 2021 P/E is 15x and implied 2021 P/B is 1.3x, which we believe are fair given their dominant positions and potential growth outlooks. We value these investments at 2x book value (given their profitability and growth outlooks), implying a value contribution to BWE of VND602bn and VND3,119/share, respectively.

Figure 12: Value contribution of Can Tho water companies to BWE

Item	VND bn
BWE's investment at 2x book value	602
BWE's shares (million shares)	193
Value per share (VND)	3,119

Source: VCSC forecast

TDM submitted a plan to spend a total of VND213bn (VND143bn in CTW and VND70bn in Can Tho 2 JSC) to acquire stakes in these water companies. We incorporate TDM's equity raising into our model and thus incorporate value from the two Can Tho water companies. We assume the auction of 10 million shares in 2023 will be successful at an assumed price of VND28,300/share following the company's board resolution on November 9, 2022. Moreover, we assume TDM will use the proceeds from its equity raising to acquire additional stakes in the two Can Tho water companies.

We value TDM's investment in the Can Tho water companies by 2x book value, implying a value contribution to TDM of VND426bn and VND3,873/share, respectively.

Figure 13: Value contribution of Can Tho water companies to TDM

Item	VND bn
TDM's investment at 2x book value	426
TDM's shares (million shares)	110
Value per share (VND)	3,873

Source: VCSC forecast

Dong Nai Water valuation

Figure 14: DNW's valuation

Item	VND bn
Equity value	3,817
BWE's stake (%)	18%
Value of BWE's stake	676
BWE's shares (million shares)	193
Value per share (VND)	3,502

Source: DNW, VCSC forecast

Figure 15: DNW's DCF valuation

Cost of Capital	Current	FCFF (Five Years)	VND bn
Beta	1.0	PV of Free Cash Flows	2,662
Market Risk Premium %	8.0%	PV of Terminal Val (1% g)	3,020
Risk-free Rate %	6.0%	PV of FCF and TV	5,682
Cost of Equity %	14.0%	+ Cash & ST investments	109
Cost of Debt %	7.5%	- Debt	-1,867
Debt %	52.6%	- Minority Interest	-107
Equity %	47.4%	Equity Value	3,817
Corporate Tax Rate %	6.0%		
WACC %	10.3%		

Source: DNW, VCSC forecast