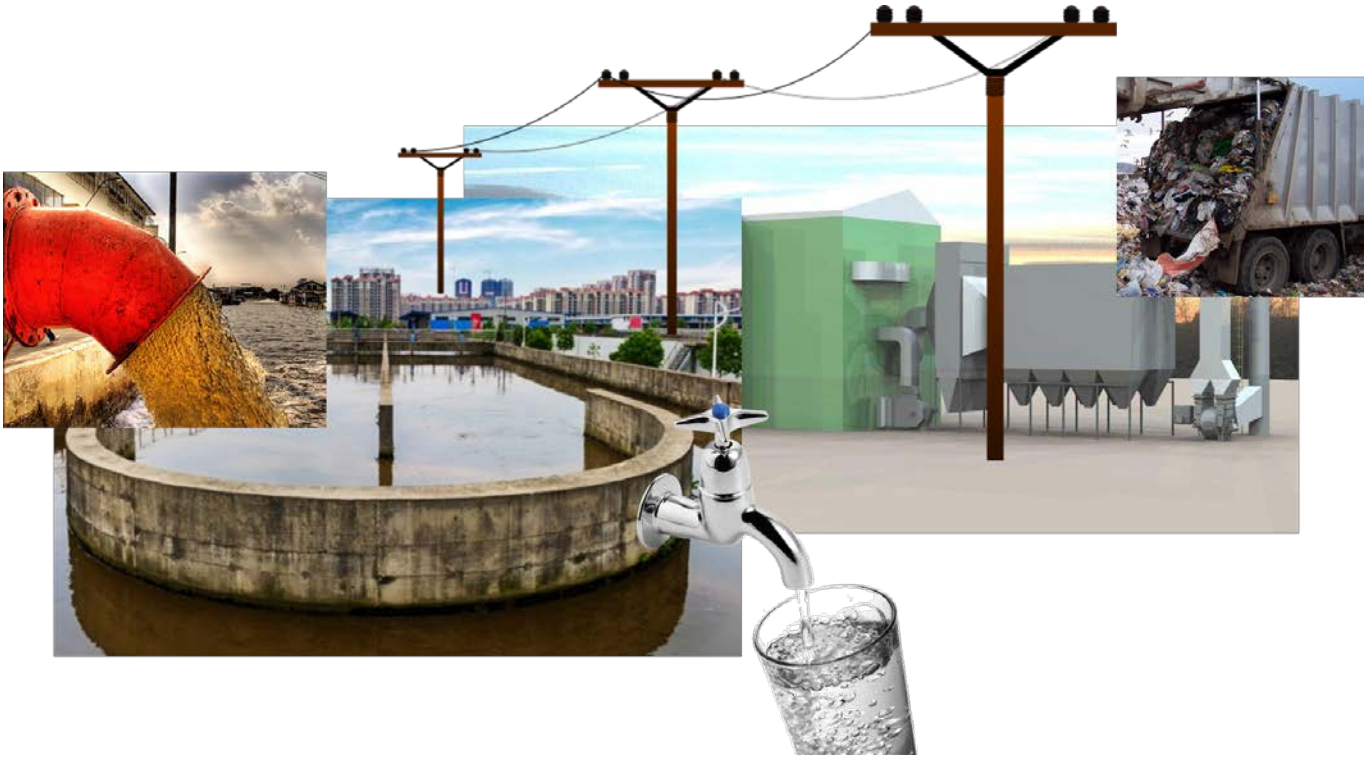
China Waste and Water

5 December 2013



It's safe go to back in the water

We initiate coverage on the China waste and water sector. Within our covered universe, we have two Outperform stocks, China Everbright International (257 HK) and Guangdong Investment (270 HK), and one Neutral-rated stock, Beijing Enterprises Water (371HK). Target prices for our Outperform-rated stocks imply 14-17% potential upside. We are bullish on the sector as we expect the current supportive policy environment to persist over the medium term given China's urbanization growth and rising environmental concerns.

Analyst

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Initiation on China Waste and Water Sector

It's safe to go back in the water

- **We initiate coverage on the China waste and water sector.** We are bullish on the sector as policies supportive of the environment will persist over the medium term as urbanization accelerates and amid rising environmental concerns. Within our covered universe we have two Outperform stocks, China Everbright International (CEI, 257 HK) and Guangdong Investment (GDI, 270 HK), and one Neutral-rated stock, Beijing Enterprises Water (BEW, 371 HK). Target prices for our Outperform-rated stocks imply 14-17% potential upside.

- **Policy tailwinds.** We expect China waste and water names to continue to outperform backed by favorable government policies towards environmental protection. We see China's waste-to-energy (WTE) market continuing to expand in line with the government objective to lift the WTE-to-total treatment ratio from 20% in 2010 to 35% in 2015F. China's wastewater treatment (WWT) market is likely to experience a gradual slowdown in new capacity additions as the WWT ratio continues to rise over the medium term; however, tariff hikes should mitigate the effect on earnings.

- **Market has yet to factor in potential growth from new markets** such as hazardous waste treatment (HWT) and water renovation projects. We believe HWT will become a new important income stream for China's waste operators given increasing demand for third-party waste treatment and the higher returns it brings (levered IRR: 15-20%) compared with WTE (levered IRR: 10-15%). As China is still behind in its water renovation plans, we expect more investment in this area in the medium term; good news for WWT operators.

- **Volume growth from new project wins, collection points growth, and M&A opportunities.** We expect waste/waste water volume growth from project wins in both existing and new geographical areas, a rising number of waste/waste water collection points, and large-scale M&A. Watch for established SOE players with strong political connections, experienced management teams, solid project execution track records, and low funding costs.

- **Catalysts and risks.** Near-term catalysts include (1) more lucrative waste/water project wins, (2) faster-than-expected penetration into new business segments, (3) additional supportive policies, and (4) large-scale value-accretive M&A. Downside risks to our view include (1) slower-than-expected new capacity expansion, (2) on-grid tariff, waste tipping fee, and water tariff cuts, and (3) rising interest rates.

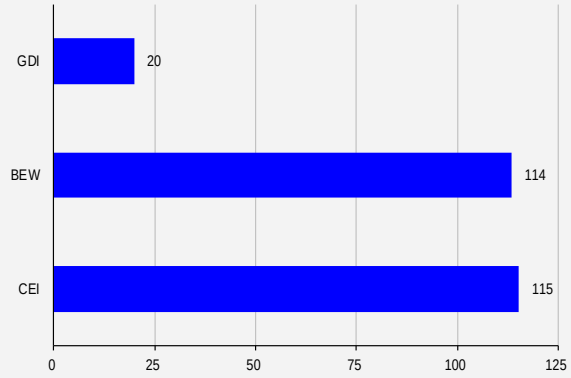
China waste/water operators – valuation summary

Company	Stock code	CCBIS rating	Price (HK$)*	Target (HK$)	P/E (x) 2014F	EPS CAGR (%) 2013-2015F	P/B (x) 2014F	ROE (%) 2014F
CEI	257 HK	Outperform	8.44	9.90	19.7	19.8	3.2	17.3
GDI	270 HK	Outperform	7.30	8.30	12.3	8.2	1.6	13.6
BEW	371 HK	Neutral	4.27	4.70	23.6	25.9	2.6	11.3

** Price as at close on 3 December 2013*

Source:Bloomberg, CCBIS estimates

China waste/water operators YTD performance



Source: Bloomberg, CCBIS estimates

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Investment theme

Sailing on policy tailwinds

We initiate coverage on China's waste and water utilities sector with two Outperform ratings and one Neutral rating. Target prices for our Outperform rated stocks suggest 14-17% potential upside. Since 2Q13**,** the sector has been trading at the higher bound of its historical valuation averages; however, we believe investors' strong expectation that the government will push environmental protection measures will limit downside risks to the sector in the near term. In short, we have a positive outlook for the future prospects of China's environmental service providers and forecast an 8-26% EPS CAGR for our covered stocks. China Everbright International (CEI) is our top pick within the sector given its strong project flow and comparatively better earnings visibility.

Outperformance likely to continue on government support

China waste and water names have been key beneficiaries of government plans to expedite environmental protection and energy saving-related industries. The sector has surged 79% YTD, massively outperforming the HSCEI on the strong expectation of continuous project flow and favourable government policies. For the moment, government support has focused on the following areas: (1) accelerating WWT and WTE infrastructure construction, (2) increasing spending on waste and water treatment, (3) standardizing on-grid tariffs for WTE projects, (4) providing tax rebates and benefits for waste and water treatment operators, and (5) encouraging local government officials to devote more resources towards environmental protection. In our view, these and other similar policies will underpin the sector's outperformance in the medium term.

Volume growth from both capacity expansion and the increasing number of waste and waste water collection points

We expect volume growth to ride on capacity expansion and the increasing number of waste/waste water collection points. By 2015F, the government plans to add 415k tpd of new MSW treatment capacity and 83m tpd of new WWT treatment capacity, implying 14% and 11% CAGR for 2011-2015F. In addition to infrastructure expansion, we expect an increase in waste and waste water collection points to accommodate China's growing population and rising urbanization rate. The plan is for a waste collection point to be built for every area of 5k residents. In the case of densely populated areas, waste collection points are to be established every $1km^2$. Additional WWT would be required for this endeavor, including expansion of the pipe network to collect the greater volumes of waste water and to support higher plant utilization.

Industry landscape in favor of established SOE players

We believe SOE players with strong government support, solid project execution track records, seasoned management teams, and low funding costs stand the best chance at success in the long run. Given the counterparties for waste and waste water projects are local governments and that environmental projects are directly related to residential living standards, we believe companies only those firms with strong political access and solid project execution experience will be entrusted with new WWT projects. Consequently, these companies are also more likely to experience higher earnings growth. As BOT/BT projects require large upfront capex, we also like those players with lower funding costs. As the sector matures, we expect to see the more established players of today continue to win new projects and in the process seize market share by swallowing up smaller less inefficient companies.

WTE a fledgling market

China plans to lift WTE to total waste treatment ratio from 20% in 2010 to 35% in 2015F. This implies explosive growth in the next five years. We have already witnessed rapid development of WTE plants along the coast. Having secured existing markets, tier-one players are beginning to expand into new regions. To put China's WTE market in perspective, consider that in developed countries such as Europe and Japan, the WTE mix could be close to 70-80%. In China, it was only 20% as at the end of 2012, implying ample headroom for growth. Central and western China are expected to account for about 28% of new capacity during the 12th Five-year Plan (FYP) period. These two areas will be the next battleground for waste operators vying for new projects over the medium term. More stringent emission standards will also likely mean less resistance to construction from local residents. In our view, it is quite unlikely that we will see WTE on-grid tariff cuts in the near term given our assumptions that (1) lower tariffs will dampen new capacity growth and that (2) WTE on-grid tariff subsidies account for a relatively small portion of the government's Renewable Energy Fund compared with other renewables.

WWT entering its second growth phase

In contrast to the WTE market, WWT is entering its second growth phase following rapid development over the past decade. We believe new capacity additions will slow over the medium term while the WWT ratio continues to rise. According to the government's plan, by the end of 2015F, the municipal WWT rate will have to reach 85%, up from 78% in 2010. Over the next decade, the focus in the WWT space will be rural and township WWT, and reclaimed water and sludge treatment projects. Even though capacity growth is slowing, there will still be plenty of room for end-user water tariffs to grow given that water bills still constitute a small portion of residential disposable income and that environmental protection remains a tiny portion of total government spending. Tap water cost and WWT tariffs have risen 2% on average each year for the past few years. If our assumption that these tariffs will continue to rise at about the same rate is correct, it would suggest that water operator earnings over the medium term has potential upside. M&A opportunities are also likely to emerge for the larger SOE players now that the sector is beginning to consolidate.

Potential earnings drivers from new markets

We believe the street has yet to fully factor in potential growth from new business segments such as HWT and environmental renovation projects. HWT is bound to provide substantial business growth for established operators given the more stringent government controls on environmental pollution and emission standards. HWT's higher return (levered IRR: 15-20%) versus conventional WTE projects (levered IRR: 10-15%) could also boost waste operator earnings over the medium term. Meanwhile, environmental renovation projects will offer WWT operators an additional earnings driver given government plans to remedy the contamination of the country's major water basins and rivers. By the end of 2012, only 27% of water renovation projects planned for 2011-2015F had been executed. Local authorities will have to accelerate progress in this area if they are to meet their targets. Other business segments such as sludge treatment, water reclamation, and desalination will undergo commercialization once more concrete policies are released (market pricing mechanism, and tax benefits, etc.) and as advances in technology make these projects more feasible.

What is and what is not in the price?

Outperformance by China's waste and water sector is evidence that the street anticipates more policies to be released to encourage environmental protection and the construction of waste and water projects by waste and water treatment service operators. CEI and BEW have surged 115% and 114% YTD, and their respective P/E multiples have reached new highs over the past three years. We expect CEI, BEW and other tier-one SOE players to keep their valuation premiums in view of their better access to quality projects, their close political connections, and their lower funding costs. In our view, the street has yet to fully factor in potential growth from new business segments like hazardous waste treatment (HWT) and water renovation that will emerge in the short-to-medium term. We see potential upside to consensus 2013-2015F EPS forecasts.

Risks

Downside risks to our sector view include (1) slower-than-expected addition of new capacities, (2) on-grid tariff, waste tipping fee, and water tariff cuts, as well as (3) an increase in interest rate.

Catalyst

We view near term share price catalysts as (1) more lucrative waste/water project wins, (2) faster-than-expected penetration into new high growth segments, (3) further release of favorable policies supportive to waste/water industries, and (4) large-scale M&As resulting in rapid market share expansion.

China waste and water names under our coverage

			Share	Market													EPS CAGR
	Stock	CCBIS	price	cap	P/E (x)			P/B (x)			ROE (%)			Yield (%)			(%)
Company	code	Rating*	(HK$)	(US$b)	2013F	2014F	2015F	2013F	2014F	2015F	2013F	2014F	2015F	2013F	2014F	2015F	2013-2015F
CEI	257 HK	Outperform	8.63	4,512	27.4	19.7	16.6	3.7	3.2	2.8	14.1	17.3	17.9	0.8	1.2	1.5	19.8
GDI	270 HK	Outperform	7.31	5,883	12.8	12.3	10.5	1.7	1.6	1.5	12.9	13.6	14.6	3.1	3.3	3.5	8.2
BEW	371 HK	Neutral	4.37	4,755	32.1	23.6	19.7	2.8	2.6	2.4	10.5	11.3	12.5	1.2	1.6	2.0	25.9
Simple average					24.1	18.5	15.6	2.7	2.5	2.2	12.5	14.1	15.0	1.7	2.0	2.3	17.9
Weighted average					23.2	18.1	15.2	2.6	2.4	2.1	12.5	14.0	14.9	1.8	2.2	2.4	17.2

Source: Bloomberg, CCBIS estimates

Investment snapshot

Our stock coverage in order of preference: China Everbright International, Guangdong Investment and Beijing Enterprises Water

We initiate on the China waste and water sector with two Outperform ratings and one Neutral rating. Our stock picks in order of preference are CEI, GDI, and BEW. Our target prices suggest 10-17% potential upside.

China Everbright International (CEI, 257 HK, Outperform, TP: HK$9.90)

CEI International is our sector top pick as it is at the forefront of China's fledgling WTE sector now undergoing an initial growth spurt, with strong waste project inflow momentum and relatively high earnings visibility. CEI has 3,450 tpd of projects in the works, which will contribute to earnings after 2015F. In our view, the market has underestimated the growth potential inherent in CEI's geographical expansion and penetration of new business segments, notably HWT and medical waste treatment. We see potential upside to consensus 2014-2015F EPS forecasts.

Guangdong Investment (GDI, 270 HK, Outperform, TP: HK$8.30)

We consider GDI a defensive play with limited earnings downside and upside potential in the near-to-medium term. We like the stock in view of its strong cash position and the recent disposal of its non-core assets, which increases the likelihood of a higher dividend payout and/or water and property asset acquisitions in 2013-2014F. The company's latest scheme to supply water to Hong Kong is likely to generate satisfactory results given Hong Kong's heavy reliance Dongjing water resources. We have yet to factor in any revaluation gains on GDI's property assets, which together with the company's potential M&A, offers potential upside to our 2013-2015F EPS forecasts.

Beijing Enterprises Water (BEW, 371 HK, Neutral, TP: HK$4.70)

We believe BEW's earnings growth in 2013-2015F will be underpinned by rapid capacity expansion through new project wins and external acquisitions. BEW is one of the leaders of China's WWT market and, as such, is a good proxy to China's recent policy turn towards greater protection of the environment. Keener competition for quality project acquisitions tempers our enthusiasm for the stock, however, as we believe this will eventually translate to higher acquisition costs. Potential earnings volatility is another risk we associate with the company based on its higher mix of BT projects compared with peers coupled with the slowdown we expect in industry capacity growth after 2015F. BEW, trading at 24x 2014F P/E, is the most expensive of the three stocks in our covered universe.

Waste and water utilities peer valuation

Company	Stock code	CCBIS rating	Share price (L/C)*	Market cap (US$m) 3 Dec 2013	P/E (x) 2013F	P/E (x) 2014F	P/E (x) 2015F	P/B (x) 2013F	P/B (x) 2014F	P/B (x) 2015F	ROE (%) 2013F	ROE (%) 2014F	ROE (%) 2015F	Dividend yield (%) 2013F	Dividend yield (%) 2014F	Dividend yield (%) 2015F	EPS CAGR (%) 2013–2015F	Price change (%) 1M	Price change (%) 3M	Price change (%) 6M	Price change (%) YTD
Hong Kong																					
CEI	257 HK	Outperform	8.44	4,413	27.4	19.7	16.6	3.7	3.2	2.8	14.1	17.3	17.9	0.8	1.2	1.5	19.8	11.2	18.5	34.0	115.3
GDI	270 HK	Outperform	7.30	5,875	12.8	12.3	10.5	1.7	1.6	1.5	12.9	13.6	14.6	3.1	3.3	3.5	8.2	8.8	9.9	7.8	19.9
BEW	371 HK	Neutral	4.27	4,647	32.1	23.6	19.7	2.8	2.6	2.4	10.5	11.3	12.5	1.2	1.6	2.0	25.9	25.2	28.2	53.0	113.5
Sound Global	967 HK	Not Rated	4.38	729	13.6	11.8	11.5	2.0	1.7	1.4	16.1	15.9	12.9	–	N/A	N/A	N/A	(0.9)	10.9	3.1	17.7
Tianjin Capital	1065 HK	Not Rated	3.28	1,645	12.7	11.8	N/A	N/A	N/A	N/A	8.8	9.3	N/A	N/A	N/A	N/A	N/A	4.8	15.1	(2.7)	60.0
Water Industry	1129 HK	Not Rated	1.69	242	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	18.2	26.1	24.3	141.4
China Water*	855 HK	Not Rated	2.80	521	15.3	13.5	13.7	1.1	1.1	1.0	8.0	8.0	8.1	2.2	2.5	2.9	1.3	(5.1)	(3.1)	(2.1)	17.2
New Environmental Energy	3989 HK	Not Rated	0.61	366	3.6	12.2	N/A	0.9	0.8	N/A	28.6	7.4	N/A	–	–	N/A	N/A	15.1	87.7	148.0	126.4
CTEG	1363 HK	Not Rated	3.00	535	16.7	12.5	9.7	3.9	3.1	2.5	24.9	25.2	27.3	0.8	1.0	1.4	N/A	53.1	102.7	102.7	102.7
Simple average				2,108	16.8	14.7	13.6	2.3	2.0	1.9	15.5	13.5	15.5	1.2	1.6	2.3	13.8				
Weighted average					20.8	16.6	13.0	2.3	2.1	1.8	12.7	13.5	13.2	1.5	1.8	2.0	13.5				
China																					
Beijing Capital	600008 CH	Not Rated	7.27	2,626	25.5	21.4	16.5	2.7	2.5	N/A	10.8	12.1	N/A	2.0	2.2	N/A	18.5	2.8	6.8	(9.9)	66.4
Chongqing Water	601158 CH	Not Rated	6.18	4,870	14.9	14.0	13.4	2.2	2.0	1.8	15.1	14.7	13.5	4.1	4.7	N/A	5.7	3.2	6.2	(5.8)	16.4
Shanghai Chengtou	600649 CH	Not Rated	9.54	4,679	16.4	12.4	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	15.9	33.2	23.6	74.4
Sound Environment	000826 CH	Not Rated	34.33	3,643	36.6	28.0	21.6	4.3	3.9	3.5	13.0	15.4	16.0	0.4	0.5	0.3	22.7	3.5	(0.9)	(6.4)	49.3
Shenzhen Energy	000027 CH	Not Rated	5.82	2,525	10.3	12.9	13.5	0.9	0.9	0.9	8.4	7.3	6.6	2.2	2.1	2.1	5.6	1.4	6.6	(4.3)	(2.7)
Zhongshan Public Utilities	000685 CH	Not Rated	12.07	1,543	21.9	N/A	N/A	1.5	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	6.5	14.0	0.7	9.6
Jiangnan Water	601199 CH	Not Rated	15.05	578	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	3.9	10.5	8.7	22.0
Nanhai Development	600323 CH	Not Rated	10.22	972	24.9	22.1	19.5	2.4	2.2	2.0	9.3	9.3	11.1	N/A	N/A	N/A	12.4	N/A	42.5	36.1	56.7
Jiangxi Hongcheng Waterworks	600461 CH	Not Rated	8.48	459	24.2	21.5	19.1	1.6	1.5	1.4	6.2	7.1	7.2	N/A	N/A	N/A	12.8	9.4	16.3	7.2	15.5
Qianjiang Water Resources	600283 CH	Not Rated	8.32	390	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	9.2	9.8	(4.9)	(6.7)
Simple average				2,228	21.9	18.9	17.3	2.2	2.2	1.9	10.5	11.0	10.9	2.2	2.4	1.2	13.0				
Weighted average					20.0	15.6	11.2	1.8	1.6	1.2	8.2	8.5	6.9	1.5	1.6	0.3	8.6				

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Waste and water utilities peer valuation (continued from previous page)

Company	Stock code	CCBIS rating	Share price (L/C)*	Market cap (US$m) 3 Dec 2013	P/E (x) 2013F	P/E (x) 2014F	P/E (x) 2015F	P/B (x) 2013F	P/B (x) 2014F	P/B (x) 2015F	ROE (%) 2013F	ROE (%) 2014F	ROE (%) 2015F	Dividend yield (%) 2013F	Dividend yield (%) 2014F	Dividend yield (%) 2015F	EPS CAGR (%) 2013–2015F	Price change (%) 1M	Price change (%) 3M	Price change (%) 6M	Price change (%) YTD
Asia Pacific																					
Hyflux	HYF SP	Not Rated	1.19	785	20.2	18.3	13.5	1.4	1.3	1.1	6.9	7.4	10.0	2.5	2.5	2.9	25.7	1.7	1.3	(11.9)	(7.0)
C&G Environmental Protection	CNGI SP	Not Rated	0.37	287	92.5	24.7	13.7	N/A	N/A	N/A	1.4	5.1	8.1	N/A	N/A	N/A	N/M	85.0	281.4	270.0	285.4
SIIC Environment	SIIC SP	Not Rated	0.14	609	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	7.8	67.5	85.3	73.8
Manila Water*	MWC PM	Not Rated	22.20	1,021	9.0	9.0	8.1	1.5	1.3	1.2	17.9	15.5	16.0	3.6	3.6	3.7	7.3	(11.2)	(32.8)	(43.6)	(30.6)
Metro Pacific Investments	MPI PM	Not Rated	4.76	2,829	15.9	13.9	11.9	1.3	1.2	1.1	8.9	9.7	9.7	0.7	0.7	0.8	15.7	(2.5)	(7.4)	(20.8)	7.0
Thai Tap Water	TTW TB	Not Rated	10.00	1,240	15.7	15.0	13.9	3.6	3.5	3.4	23.7	23.9	24.9	5.7	5.7	6.0	5.5	(2.0)	2.6	(8.3)	8.7
Eastern Water Resources	EASTW TB	Not Rated	12.60	651	14.5	13.3	N/A	2.6	2.4	N/A	N/A	N/A	N/A	3.5	3.8	N/A	N/A	–	–	(8.7)	(2.3)
Cleanaway	8422 TT	Not Rated	189.00	696	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	5.9	5.9	6.5	N/A	3.3	8.9	(21.4)	(1.3)
Kurita Water Industries*	6370 JP	Not Rated	2187.00	2,546	25.3	20.9	18.2	1.2	1.2	1.2	5.0	5.8	6.3	2.0	2.1	2.2	9.2	3.1	8.7	(0.5)	15.6
Asahi Holdings*	5857 JP	Not Rated	1813.00	642	10.4	10.1	10.0	N/A	N/A	N/A	12.5	N/A	N/A	3.6	3.6	3.4	9.4	11.1	8.4	8.7	24.7
Tox Free Solutions***	TOX AU	Not Rated	3.49	424	17.7	15.7	13.9	2.0	1.8	1.7	11.9	12.1	12.5	1.6	1.9	2.2	27.5	5.8	3.9	2.6	18.3
Transpacific Industries***	TPI AU	Not Rated	1.14	1,634	25.1	20.4	16.1	0.9	0.8	0.8	3.5	4.3	5.2	0.2	0.8	2.1	N/M	0.9	17.6	44.6	45.5
Simple average				1,113.8	24.6	16.1	13.3	1.8	1.7	1.5	10.2	10.5	11.6	2.9	3.1	3.3	14.3				
Weighted average					18.3	14.7	11.9	1.3	1.3	1.1	8.3	8.0	8.6	2.2	2.3	2.4	9.0				

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Waste and water utilities peer valuation (continued from previous page)

Company	Stock code	CCBIS rating	Share price (L/C)*	Market cap (US$m) 3 Dec 2013	P/E (x) 2013F	P/E (x) 2014F	P/E (x) 2015F	P/B (x) 2013F	P/B (x) 2014F	P/B (x) 2015F	ROE (%) 2013F	ROE (%) 2014F	ROE (%) 2015F	Dividend yield (%) 2013F	Dividend yield (%) 2014F	Dividend yield (%) 2015F	EPS CAGR (%) 2013–2015F	Price change (%) 1M	Price change (%) 3M	Price change (%) 6M	Price change (%) YTD
Global waste/water operators																					
Veolia Environnement	VIE FP	Not Rated	11.41	8,514	38.3	22.6	14.0	0.8	0.8	0.8	2.1	3.4	5.1	6.2	6.1	6.2	1.3	(8.2)	(5.4)	17.6	24.6
Suez Environment	SEV FP	Not Rated	12.50	8,671	19.0	17.1	14.7	1.3	1.3	1.3	6.9	7.7	8.3	5.2	5.2	5.3	20.1	(2.4)	8.3	26.8	37.2
Seche Environnement	SCHP FP	Not Rated	27.30	321	14.0	12.4	10.8	0.9	0.8	0.8	6.3	7.0	7.6	3.6	3.7	3.8	N/M	(6.5)	2.4	(7.1)	(0.8)
American Water Works	AWK US	Not Rated	41.67	7,429	19.0	17.4	16.3	1.6	1.6	1.5	8.5	8.7	9.0	2.6	2.8	3.0	8.1	(2.5)	3.4	3.4	12.2
Aqua America	WTR US	Not Rated	23.33	4,123	20.5	19.4	18.6	2.7	2.6	2.4	13.6	13.5	13.3	2.8	3.1	3.4	3.7	(7.1)	(4.8)	(6.3)	14.7
California Water Service Group	CWT US	Not Rated	22.11	1,056	24.6	19.2	18.3	1.8	1.8	1.7	7.8	9.5	N/A	2.9	3.0	3.1	1.1	3.5	12.5	9.6	20.5
Covanta Holding Corp	CVA US	Not Rated	17.35	2,264	44.8	45.9	32.2	2.5	2.5	2.4	N/A	N/A	N/A	3.8	3.8	3.8	N/M	(0.4)	(18.0)	(15.0)	(5.8)
Hera SpA	HER IM	Not Rated	1.60	3,093	14.7	16.8	14.8	1.0	1.0	1.0	9.6	6.7	6.9	5.6	5.6	5.7	0.4	6.7	7.6	5.8	32.4
United Utilities Group*	UU/ LN	Not Rated	6.52	7,289	15.4	14.5	15.3	2.1	2.1	2.0	17.2	14.7	14.0	5.6	5.9	5.8	N/M	(7.2)	(4.4)	(13.8)	(3.3)
Falck Renewables	FKR IM	Not Rated	1.26	501	23.4	18.9	13.0	1.0	1.0	0.9	4.3	4.9	7.1	1.1	1.3	2.6	N/M	0.6	31.1	42.6	29.8
Acciona	ANA SM	Not Rated	41.41	3,224	31.5	41.5	22.2	0.5	0.5	0.5	1.3	0.9	1.9	4.6	4.8	5.4	N/M	(10.7)	4.8	(13.2)	(26.3)
Pennon Group	PNN LN	Not Rated	6.31	3,850	16.1	15.1	13.0	2.3	2.2	2.0	13.7	13.4	15.0	4.8	5.1	5.4	87.1	(7.4)	(11.2)	(7.9)	1.0
Shanks Group	SKS LN	Not Rated	1.08	705	19.3	16.1	13.7	1.4	1.3	1.3	8.0	8.4	9.5	3.2	3.2	3.5	N/M	2.4	13.7	25.6	23.8
Casella Waste Systems**	CWST US	Not Rated	5.95	236	N/M	N/M	N/M	20.2	14.0	N/A	N/A	3.2	N/A	N/A	N/A	N/A	N/M	0.7	11.4	45.8	35.8
Progressive Waste Solutions	BIN US	Not Rated	25.91	2,984	24.8	21.1	18.3	2.3	2.3	2.2	9.2	11.2	11.6	2.2	2.3	2.4	20.5	(3.6)	7.2	14.6	20.0
Republic Services	RSG US	Not Rated	34.61	12,463	18.2	17.2	16.2	1.6	1.6	1.6	N/A	9.0	N/A	2.7	2.9	3.2	11.0	0.8	7.6	0.7	18.0
Waste Connections	WCN US	Not Rated	44.39	5,484	25.6	22.8	19.7	2.7	2.5	2.4	13.3	13.7	14.1	0.9	1.0	1.1	19.8	4.1	5.9	10.1	31.4
Waste Management	WM US	Not Rated	44.63	20,940	20.5	18.7	16.9	3.1	2.9	2.8	N/A	N/A	N/A	3.3	3.3	3.4	14.5	2.2	11.2	7.2	32.3
Severn Trent	SVT LN	Not Rated	17.03	6,677	20.0	19.1	20.5	4.5	4.4	4.5	25.9	25.4	24.0	4.8	5.1	5.0	N/M	(8.5)	(1.2)	(16.6)	8.2
Pentair	PNR US	Not Rated	69.99	13,951	21.9	17.6	14.5	2.2	2.1	1.9	10.3	12.0	13.1	1.4	1.5	1.7	N/M	3.7	15.4	20.1	42.4
SJW	SJW US	Not Rated	27.12	547	20.7	19.7	17.0	N/A	N/A	N/A	N/A	N/A	N/A	2.7	2.8	2.9	10.1	(4.2)	4.2	(1.4)	2.0
Simple average				5,444	22.6	20.7	17.0	2.8	2.5	1.8	9.9	9.6	10.7	3.5	3.6	3.8	16.5				
Weighted average					22.0	19.5	16.6	2.2	2.1	2.0	7.4	8.5	7.8	3.5	3.6	3.8	10.6				

** Price as at close on 3 December 2013*

*Note: FYE: * 31 March, **30 April, and *** 30 June, respectively, adjusted for CY*

Source: Bloomberg, CCBIS estimates

Key water basins in China

Source: CCBIS Research

Project exposure of CEI, GDI, and BEW by geography

Source: CCBIS Research

Financial snapshot of CEI, BEW, and GDI

	2011	2012	2013F	2014F	2015F
Diluted EPS (HK$)					
CEI	0.217	0.295	0.308	0.429	0.509
BEW	0.089	0.109	0.133	0.181	0.217
GDI	0.481	0.546	0.572	0.593	0.693
Diluted EPS growth (%)					
CEI	30	36	4	39	19
BEW	(6)	21	23	36	20
GDI	24	13	5	4	17
P/E (x)					
CEI	38.9	28.6	27.4	19.7	16.6
BEW	47.8	39.3	32.1	23.6	19.7
GDI	15.2	13.4	12.8	12.3	10.5
P/B (x)					
CEI	5.0	4.1	3.7	3.2	2.8
BEW	3.7	3.5	2.8	2.6	2.4
GDI	2.1	1.9	1.7	1.6	1.5
ROE (%)					
CEI	13.9	15.5	14.1	17.3	17.9
BEW	10.0	9.1	10.5	11.3	12.5
GDI	11.8	12.2	12.9	13.6	14.6
Net gearing (%)					
CEI	55.1	39.0	43.0	47.6	49.6
BEW	83.1	105.1	108.9	128.7	133.1
GDI	1.3	Net cash	Net cash	Net cash	Net cash
Yield (%)					
CEI	0.5	0.7	0.8	1.2	1.5
BEW	0.7	0.9	1.2	1.6	2.0
GDI	2.5	2.7	3.1	3.3	3.5
Interest coverage (x)					
CEI	5.2	4.7	6.1	6.8	6.6
BEW	3.7	3.1	3.0	3.2	3.5
GDI	22.0	23.9	31.9	31.9	32.5
Recurring gross profit (HK$m)					
CEI	1,121	1,439	1,679	2,201	2,808
BEW	830	1,127	2,023	2,642	3,139
GDI	4,628	5,087	5,641	6,308	7,334
Recurring gross profit growth (%)					
CEI	20.9	28.4	16.7	31.1	27.6
BEW	29.2	35.8	79.5	30.6	18.8
GDI	10.4	9.9	10.9	11.8	16.3
Recurring gross profit mix (%)					
CEI	78	85	75	72	81
BEW	91	78	70	68	70
GDI	100	100	100	100	100

Source: Company data, CCBIS estimates

Valuation and risks

Valuation

We adopted discounted cash flow (DCF) as our major valuation methodology as it is effective in gauging the varied cash flows from different project development phases while adjusting for the special accounting treatments of BOT, BT and TOT projects. We applied a 7.8-8.0% WACC and 2-3% terminal growth rates to the stocks we valued. For GDI, which is active in different business segments, we employed a sum-of-the-parts (SOTP) valuation methodology in order to capture the different profit-generating segments.

Valuation matrix

	CEI	GDI	BEW
Valuation matrix	DCF	SOTP (DCF, PB, PE)	DCF
DCF assumptions			
Risk free rate	4.0	4.0	4.0
Equity-risk premium	8.0	8.0	8.0
WACC	8.0	COE: 11.2-12.0	7.8
Terminal growth	3.0	0.0	2.0
CCBIS rating	Outperform	Outperform	Neutral
Target price (HK$)	9.90	8.30	4.70
Upside/downside potential (%)	17.0	14.0	10.0

Source: CCBIS estimates

Key upside risks:

1. **Release of specific policies promoting the protection of the environment.** In recent announcements, China's leadership has re-emphasized the importance of environmental protection, especially as it pertains to waste and water treatment. Should any new concrete policies be released in the near future, we would expect a re-rating of the sector.

2. **On-grid tariff and tipping fee hikes.** At the moment, the standard on-grid WTE tariff is RMB0.65/kWh. Tipping fees fall in the RMB50-130/tonne range while WWT tipping fees are in the RMB0.7-2.0/tonne range. We expect upside surprise to earnings should any of these tariffs be increased.

3. **Stronger-than-expected project flow.** As waste and water treatment operators rely on securing new projects to support future earnings growth. We expect upside to our earnings forecasts should the number of new project wins come in ahead of our expectation.

Key downside risks:

1. **Slower-than-expected new plant construction.** Typically, WTE and WWT plants require 6-9 months of preparatory work and an extra 10-18 months of construction work. If any of the projects belonging to our covered waste and water treatment names commence construction later than expected, there would be earnings downside from the delayed booking of construction revenue.

2. **Increase in accounts receivable risk.** BOT and BT projects require huge capex up front. Operators are reimbursed through monthly subsidies or installment payments upon completion of construction. Any deterioration in accounts receivables from local governments would negatively impact the affected operator's cash flow.

3. **Rising borrowing costs.** Most tier-one SOE players enjoy lower borrowing costs of 4-6%. They tend to leverage 2/3 of a given project's investment with bank loans. It follows that an interest rates hike would hurt the returns of highly levered projects.

How we differ from consensus

Our 2013-2015F earnings forecasts are generally above consensus as we have incorporated CEI and BEW's most recent project wins. We are more bullish on CEI's long-term earnings growth story given its penetration of new business segments, notably HWT. Yet we are more conservative that the street on the company's 2013F's project construction schedule. Our 2013-2015F earnings forecasts for GDI are 17% above consensus in view of GDI's new tariff scheme with the Hong Kong government and because we expect its new power plant to go on line in 2015F. Turning to BEW, we expect the company to see a jump in net profit for 2013F following a spate of new acquisitions, followed by slower growth in 2014-2015F.

	Stock	CCBIS earnings forecasts			Consensus earnings forecasts			Difference (%)		
Company	code	2013F	2014F	2015F	2013F	2014F	2015F	2013F	2014F	2015F
CEI	257 HK	1,246	1,740	2,064	1,275	1,585	1,829	(2)	10	13
GDI	270 HK	3,586	3,753	4,413	3,492	3,531	3,770	3	6	17
BEW	371 HK	1,123	1,524	1,829	1,084	1,457	1,764	4	5	4

Source: Bloomberg, CCBIS estimates

Sailing on policy tailwinds

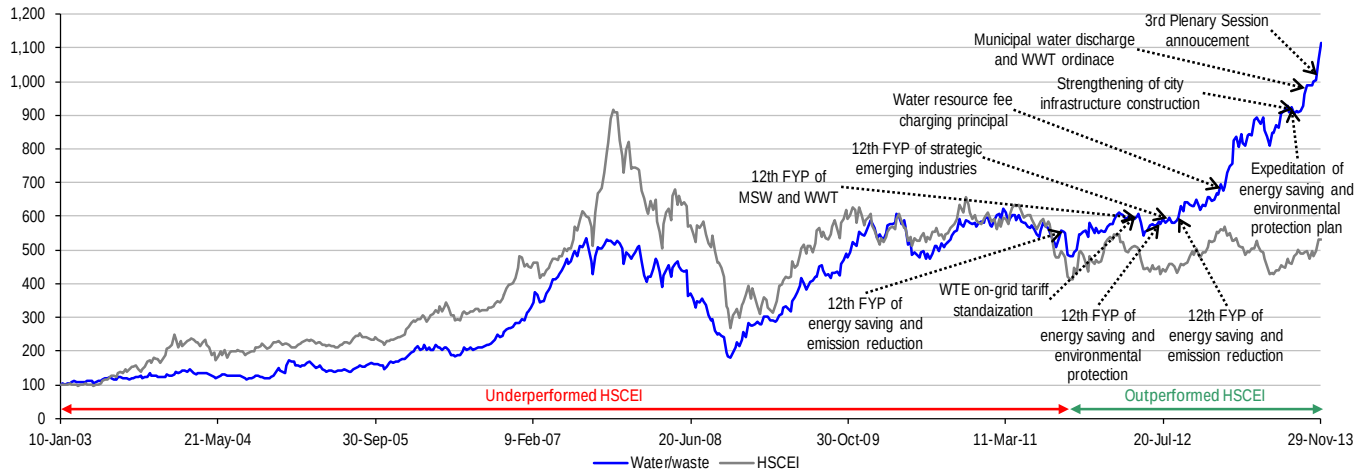
Outperformance likely to continue given government support

China waste and water names have been the key beneficiaries of the government's plan to expedite environmental protection and energy saving-related industry development. Since 3Q11 the waste and water sector has had a series of favorable policy announcements, more clarity on industry business models, and project wins that increased earnings visibility. These tailwinds are the reason the sector has outperformed the HSCEI during the period.

The Hong Kong-listed waste and water utilities have risen an average of 79% YTD. We believe their outperformance is likely to continue due to the defensive nature of utility stocks and as long as the sector continues to receive policy support.

China is a highly populated and manufacturing-intense country. It needs to secure and conserve its scarce water resources and mitigate the destructive impact of the improper disposal of solid wastes that tends to be a by-product of industrial growth and rapid urbanization.

Waste/water sector performance vs. China's policy support timeline



Source: Bloomberg, CCBIS Research

Waste and water operation services rely heavily on favorable government policies, which support the industry in several ways, including by (1) accelerating WWT and WTE infrastructure construction (plants and pipes), (2) budgeting for WWT and waste treatment in local fiscal plans, (3) standardizing on-grid tariffs for WTE projects, (4) providing tax benefits and rebates, and (5) encouraging government officials through reward-and-penalty systems to protect the environment.

Environmental protection and energy saving-related policies YTD

Date	Announcement	Water	Waste
11 Aug 2013	Suggestions for accelerating the development of the energy saving and environmental protection industries	➢ Develop new WWT technology and equipment; focus on high-throughput and durable materials and components; reduce sludge production and hazardous contents. ➢ Expand and develop the environmental services industry by encouraging WWT, MSW treatment, flue gas desulfurization and denitrification, and the reduction of industrial pollutants. Promote integrated solution services by encouraging private investment. ➢ Accelerate municipal environmental infrastructure construction, including WWT and MSW treatment facilities and ancillary pipe networks. Promote reclaimed water and MSW utilization. Push municipal WWT and MSW non-hazardous treatment capacities to reach >200m tpd and >870k tpd by 2015F, with WTE representing 35% of total MWS processed. ➢ Encourage the construction of private municipal WWT facilities; establish pricing and trading systems for emission rights. ➢ Market reform of the public utilities sector; improve pricing mechanism for WWT and MSW and include sludge treatment fees in WWT treatment cost.	➢ Push the development of advanced waste treatment equipment. Focus on incineration furnace and transmission systems, circulate fluidized bed pre-processing technology, incineration flue gas purification and leachate treatment technologies; encourage furnaces with capacities of over 300 tpd and flue gas purification suites. ➢ Improve waste tipping fee collection methods, establish reasonable fee standards and charging media; improve payment and collection rates.
16 Sep 2013	Suggestions for strengthening municipal infrastructure construction	➢ Accelerate municipal water supply upgrades and construction. Achieve a 95% municipal public water supply rate and meet water quality standards. Strengthen construction and conservation of water resources of drinking water and make better use of water resources. ➢ Upgrade old facilities to ensure municipal waste water discharge from WWT plants meet new emission standards or surface water Standard IV. Ensure concentrated waste water processing in municipalities attains a WWT rate of 85%. Complete 730k km in sewage pipe construction. Accelerate sludge treatment facilities construction and achieve a 70% of non-hazardous sludge treatment rate. Speed up water conservation-related construction and promote reclaimed water reuse. Ensure reclaimed water utilization tops 20% by 2015F. Ensure a safe water supply, remedy the municipal water environment, and strive to eliminate Standard V-water bodies. ➢ Ensure water supply, water conservation, water discharge, flood prevention, and waste water/waste treatment progress are included in assessments of municipal governments. Create incentives and legal duties to government officials.	➢ Develop pilot programs in certain municipalities for waste sorting and storage systems. Reduce MSW production and increase processing and utilization of MSW. Key cities to achieve 100% non-hazardous rate with 90% rate overall by 2015F. ➢ Strengthen construction of MSW, water supply infrastructure, and city gas infrastructure. Implementation of WWT and reclaimed water reuse policy. ➢ Accelerate municipal environmental infrastructure construction, including WWT and MSW treatment facilities and ancillary pipe networks. Promote reclaimed water and MSW utilization. Municipal WWT and MSW non-hazardous treatment capacities to top 200m tpd and 870k tpd by 2015F, with WTE to represent 35% of total MWS processed.
16 Oct 2013	Initiatives in urban drainage and waste water ordinance	➢ Encourage operating concessions, government procurement and other business models designed to attract private investment in municipal WWT facilities construction and operations. ➢ Encourage and support drainage and WWT R&D, promoting reclaimed water, sludge, and rainfall resource utilization. Expand municipal drainage and WWT capacities. ➢ WWT tipping fees to be included in local fiscal budgets towards WWT infrastructure construction, operations, and sludge treatment. Tipping fees should not be lower than WWT operating costs and should be subsidized by the government. ➢ Encourage use of reclaimed water in industrial production, city planting, street and car washing, infrastructure construction and ecological landscapes.	

(to be continued)

Environmental protection and energy saving-related policies YTD (continued from previous page)

Date	Announcement	Water	Waste
15 Nov 2013	Decision to strengthen reform of certain important issues	➢ Improve the central government's monitoring ability; strengthen public services, market monitoring, and environmental protection duties at the local level. ➢ Accelerate resource tax reform and promote environmental protection tax system reform. ➢ Impose stringent controls on origins of environmental resources, establish cost-bearing mechanism for environmental destruction, improve environmental protections and ecological remediation. ➢ Provide compensation for environmental damage and assign legal responsibilities for the welfare of the environment. Improve environmental management and develop a system to restore ecological balance. ➢ Conduct assessments of government officials regarding their environmental conservation records. ➢ Develop an environmental protection market, promote energy conservation, and establish carbon emission rights, discharge rights, and water rights trading systems. Involve third-parties in environmental improvement initiatives and establish market mechanisms to attract private investment in conservation. ➢ Improve pollutant discharge systems, control discharge amounts at commercial sites; impose strict financial and legal penalties for egregious polluters.	

Source: State Council, CCBIS Research

Volume growth from capacity expansion and the greater number of waste and waste water collection points

China's waste and waste treatment growth story remains volume-centric in the medium term. Amid increasing solid waste and waste water production from heavy manufacturing and as a result of urbanization growth, the need for long-term solutions to avert future environmental disaster is more pressing. With this in mind, China's policy makers have targeted new waste and waste water treatment capacity CAGR of 14% and 11% to 208m tpd and 871k tpd, respectively, by 2015F.

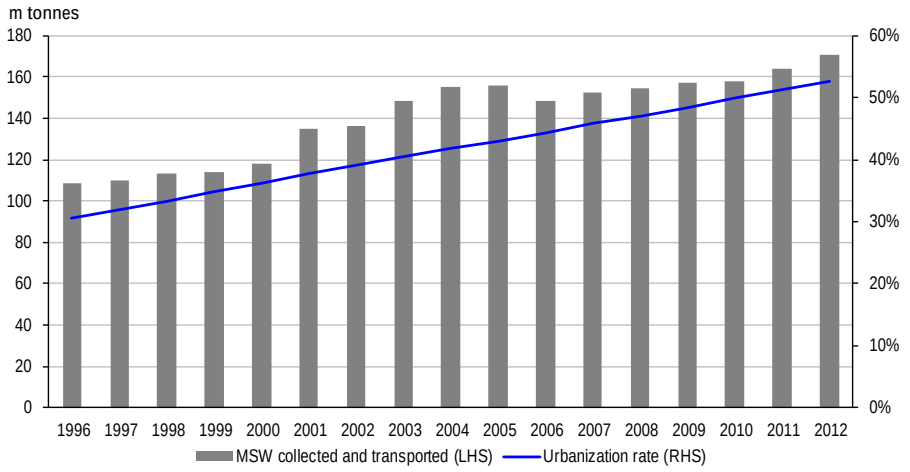
China's 12th FYP on MSW and WWT treatment

	2005	2010	2015F
MSW treatment capacity (k tpd)	237	457	871
5-year CAGR (%)		14.1	13.8
Municipal WWT capacity (m tpd)	60	125	208
5-year CAGR (%)	N/A	15.8	10.8

Source: State Council, CCBIS Research

Apart from building new plants, we believe volume growth of existing plants could be supported by adding more waste and waste water collection points. According to the "Technical specification for MSW collecting stations" approved by the MoHURD in 2012, independent waste collection points are recommended for areas of at least 5k residents (producing 4.0 tonnes of MSW per day), for schools, and for office buildings. Densely populated areas should build at least one collection point per 1km^2 and all waste collected at each collection point is required to be cleared daily. Given the increasing population and urbanization rate, we expect to see a rise in the number of waste collection points over the coming years.

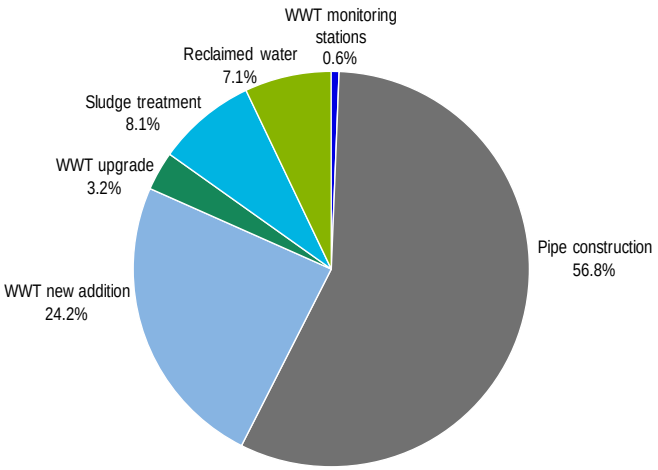
China's living waste collected and transported vs. urbanization rate (1996-2012)



Source: MoEP, NBSC, CCBIS Research

In the area of waste water management, the government plans to invest 57% of its total RMB430b investment in municipal WWT in 2011-2015F. The focus will be on water pipe network expansion. Growth rates for new built pipe length for the past three years average out to 5% YoY and we expect waste water volume to rise in tandem with the expansion of the pipeline network over the coming years.

China's investment plan for municipal WWT and reclaimed water (2011-2015F)



Source: MoHURD

Industry landscape favors established SOE players

China's established SOE players will continue to hold an advantage over their smaller non-SOE rivals in the waste and water treatment industry given their (1) closer government ties, (2) solid project execution record, and (3) lower funding costs. Given that the counterparties of waste and waste water projects are local governments, access and relationships with local authorities are critical to securing new projects and closing accounts receivable. Moreover, waste and WWT projects are usually released in BOT and BT where huge capex is required in the initial stages. Therefore, companies with lower funding costs have an advantage over those that have to pay more for financing.

Another consideration is that waste and waste water treatment projects are directly related to the living standards of regular citizens. For this reason local governments tend to play is safe when selecting waste and WWT service partners to help them meet the more stringent national emission standards. Contracts are invariably awarded to companies with seasoned management teams and established track records in project execution.

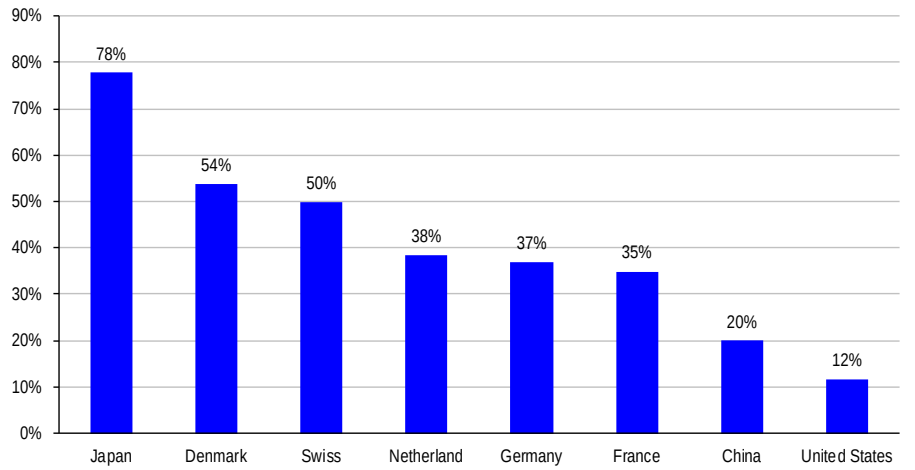
The WWT industry is still in its consolidation phase. During this time we expect the stronger to grow even stronger by crowding out smaller less efficient players. Clear evidence that this is what is taking place can be seen in the intense M&A activity of BEW, Beijing Capital (600008 CH, Not Rated), and Nanhai Development (600323 CH, Not Rated). We expect industry consolidation to continue creating opportunities for tier-one players. Through new project wins and/or M&A, we believe tier-one players will be able deliver higher earnings growth in the next few years at the expense of their peers.

Waste-to-energy a fledgling market

WTE – where the battle for growth will be joined

Compared with China's more mature WWT market, the WTE industry is still in its infancy. By 2010, approximately 78% of the country's MSW were being landfilled. WTE and other methodologies such as composting only represented 11% each of total MWS processed. The government hopes to add 218k tpd in new WTE capacity in 2011-2015F while raising the mix of WTE to 35%. Observations of developed regions such as Europe and Japan tell us that WTE-to-total waste treatment ratios tend to top out at around 70-80% depending on land scarcity, maturity of other processing methodologies, as well as the participation rate of local residents. The implication is that China's WTE market has significant room to grow.

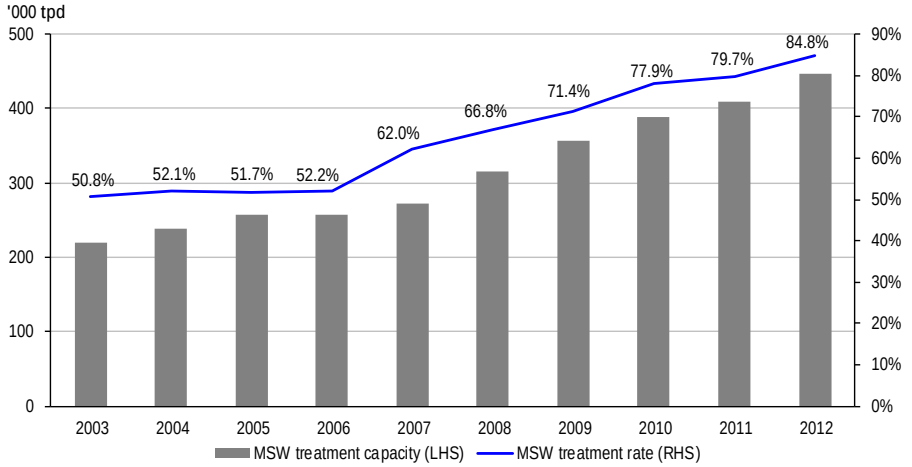
Global WTE to total waste treatment ratio (2011)



Source: United Nations, CCBIS Research

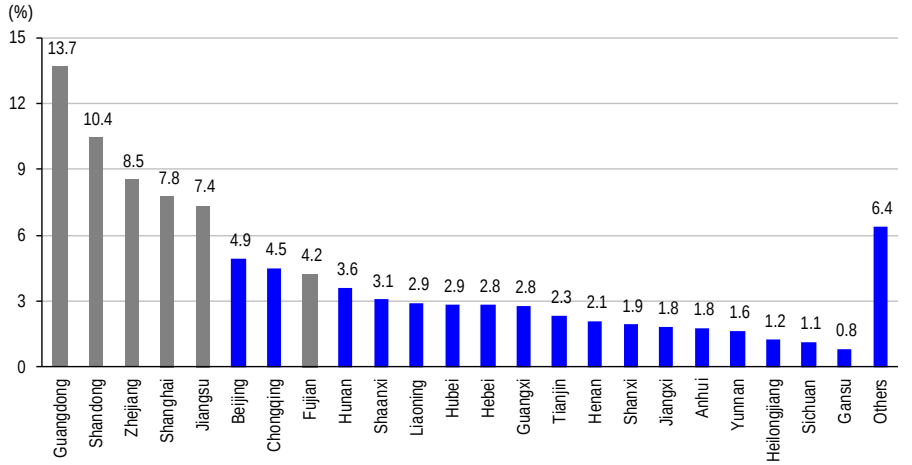
The 12th FYP makes clear the government's aim to promote and massively develop WTE in China's economically developed and land-scarce areas. According to the plan, eastern China will account for roughly 52% of total new WTE capacity additions, or 35% of total waste treatment new capacity in 2011-2015F. So far, WTE development in the east has been successful. The large-scale projects there are reaching maturity. In the mid-to-long term we expect larger operators to gradually shift focus inland towards western China, a region we expect will provide about 28% of new capacity market share.

China's MSW treatment capacity and treatment rate



Source: MoHURD

China's waste incineration capacity new built mix by province (2011-2015F)



Source: State Council, CCBIS Research

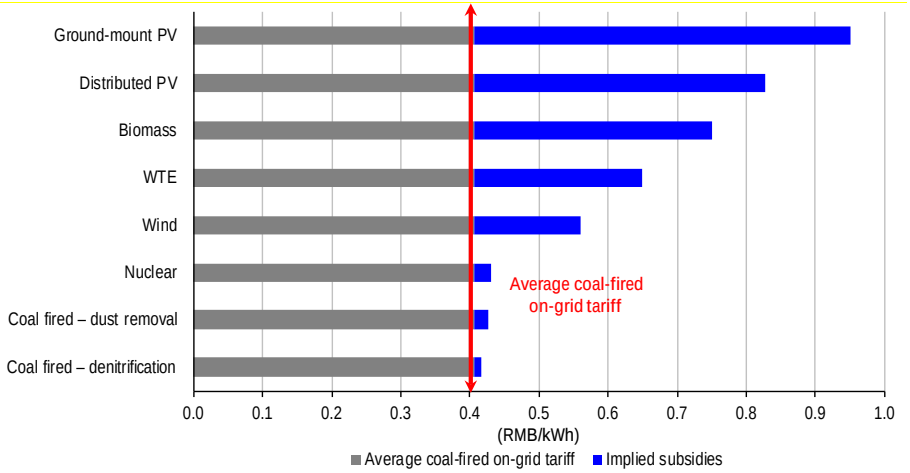
Not in my backyard (NIMBY) to become less frequent through education

Apart from large capex and location issues, we believe one of the main hurdles to the development of WTE is that people are reluctant to have new plants built in or even near their neighborhoods. Concerns of dioxins, odors, and dust particles generated from waste incineration make people reluctant to welcome the site of WTE plant being build nearby. At the moment, all incineration plants in China have to meet at least the National Standard 2000 though some tier-one players have already adopted EU 2000 at their new plants. The EU 2000 standard has more stringent limits on dioxin, SO2, total organic carbon (TOC) and dust emissions. In Guangdong there were protests against the operation of WTE plants though construction of the plant was nevertheless allowed to proceed by changing an operator who agreed to adopt higher emission standards and make more effort to communicate with local residents. As Chinese citizens become more aware of the hazards of airborne pollutants, we expect more plants to adopt higher emission standards (i.e. EU 2000) and by doing so, put themselves in line to receive potentially higher tipping fees.

WTE on-grid tariff cut unlikely in the short term

In our view, the likelihood of a WTE on-grid tariff cut is low in the near term. We view that (1) WTE is still in its initial growth stage and any aggressive downward adjustment in the tariff would be liable to discourage the development of new projects and could throw a wrench into the government's development plans; (2) unlike waste tipping fees paid by local governments, power tariffs are paid by the State Grid and subsidized by the Renewable Energy Fund. Compared with subsidies to other renewables, the WTE on-grid tariff accounts for a relatively small portion of total on-grid tariff spending.

Renewable energy on-grid tariff comparison



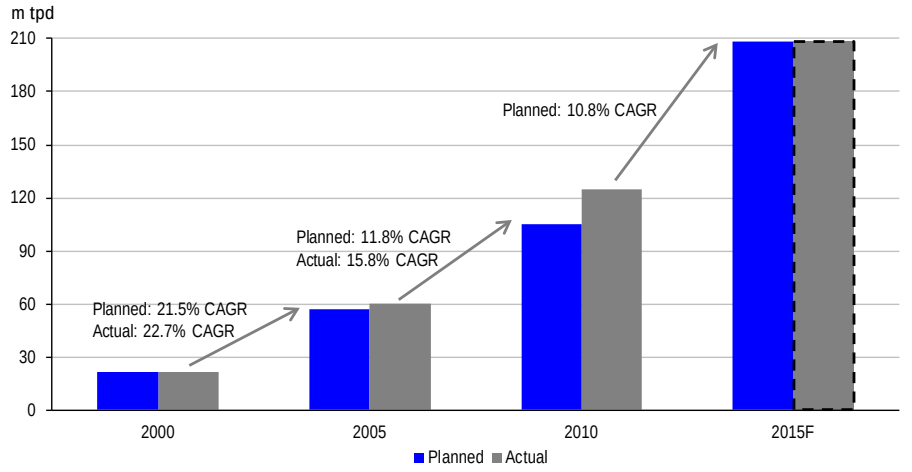
Source: CCBIS Research

WWT entering its second growth phase

New WWT capacity growth to slow…

We believe China's WWT industry has entered a second growth phase that followed a rapid development phase in the previous decade which pushed the pace of construction of new WWT capacity. In 2010 the municipal WWT rate was 78%. By the end of 2015F, the goal is for the municipal WWT rate to reach 85%. In the decade to come, construction of new WWT plants are likely to slow given the already relatively high WWT rate. While this is happening, we expect WWT operator focus to shift towards townships and rural WWT, water reclamation and sludge treatment. Critical to volume growth for WWT operators, in our view, is to grab business in the increasing waste water collection points as these entail expanding the pipe network towards achieving higher utilization rates for currently inefficient plants.

China's past FYPs on WWT capacity

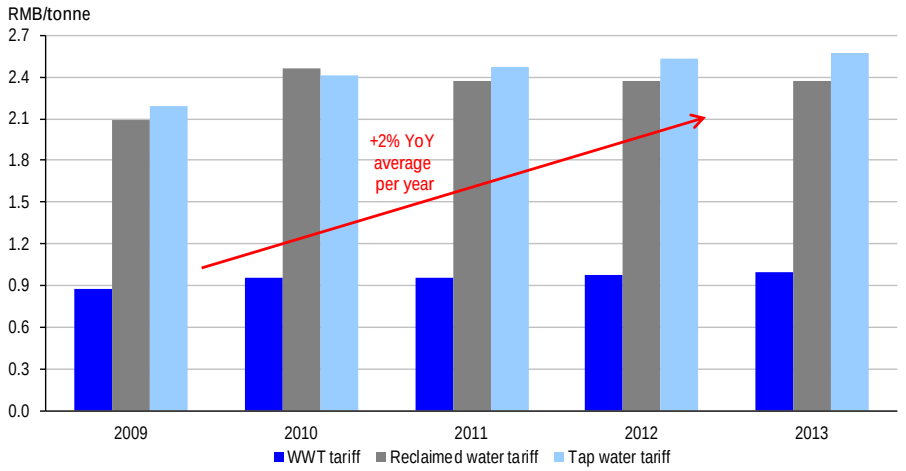


Source: State Council, CCBIS Research

…though a water tariff hike may be in the books

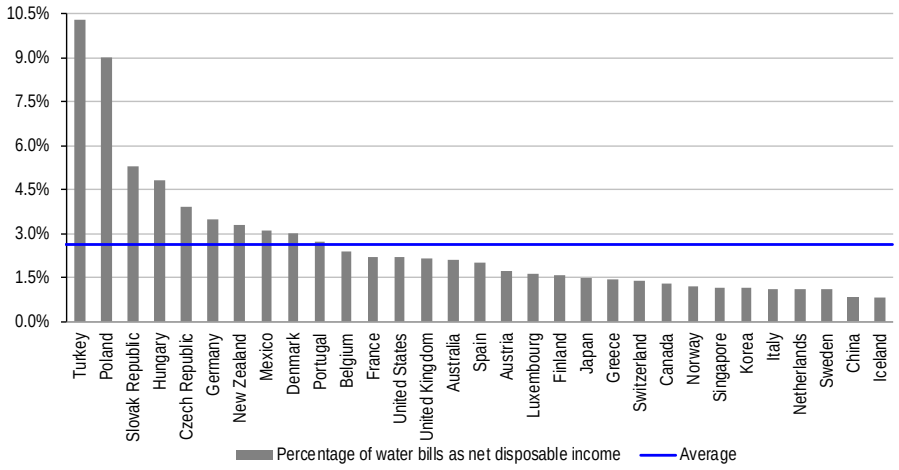
We have seen a gradual increase in average end-user tariffs over the past three years, with tap water tariffs and WWT tariffs rising 2% each per year. Water supply and WWT operators have a clause in their service agreements that gives them the option of applying for tap water tariffs and/or WWT tipping fee hikes benchmarked to their cost increases and capex requirements. If an application is made, the government considers whether or not to approve the hike in 6-12 months. The process involves a hearing over the new tariffs. We see potential upside from overall water tariff hikes given water bills remain a small portion of average disposable incomes and government spending on environmental protection only accounted for c.3% of total spending in 2012. Clearly, there exists plenty room for water tariff growth.

China's average end-user water tariff (2009-11M13)



Source: H2O China, CCBIS Research

Global water bills-to-disposable income ratio



Source: OECD

M&A opportunities for larger players

New capacity growth in China's municipal waste water treatment market will slow over the next few years, in our view. This will give rise to buying opportunities for tier-one players eager to expand capacity through extrinsic acquisitions. According to our recent checks with water companies, private investment firms and other conglomerates, competition for new WWT projects is heating up. We expect the number of high-return large-scale projects available in the market to shrink causing smaller players to be crowded out. This would put tier-one SOE players in better position to engage in M&A as SOEs tend to have better access to government decision makers, long project management experience, and lower funding costs.

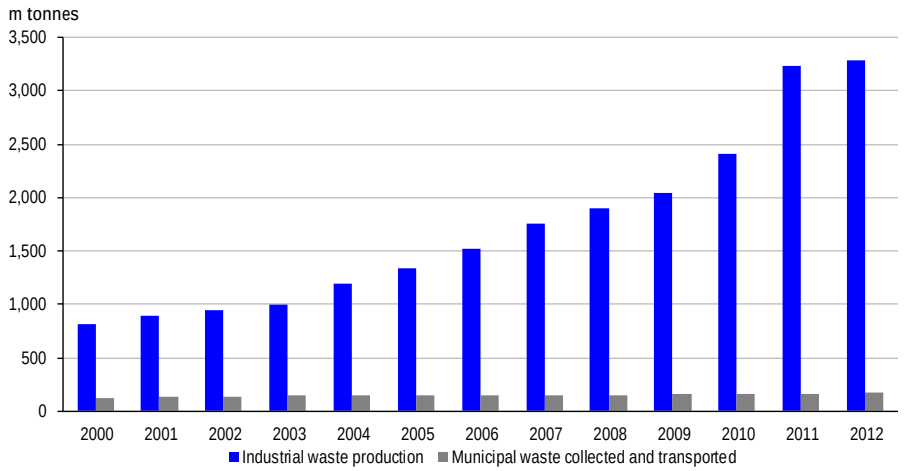
Potential earnings drivers from new markets

We see China's prominent waste and water players continuing to tap into new business areas emerging in China's environmental protection industries. New project inflow is likely to come from industrial HWT, soil remediation, sludge treatment, and environmental renovation and management projects. Of these, we think industrial hazardous waste and environmental renovation and management projects will provide the strongest growth prospects in the short-to-medium term and we expect the large SOEs with their strong political support, low funding cost, and established track records to continue to prevail in these new markets.

HWT the next battleground

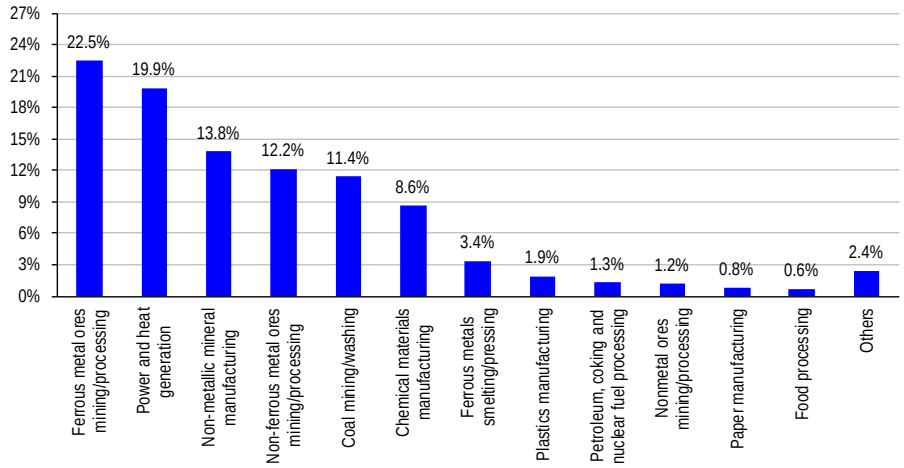
In China, the majority of the industrial solid waste is a byproduct of production and processing of ferrous and non-ferrous metals followed by the production of electricity and heat and non-metallic mineral manufacturing. According to the MoEP, China's power, metals, and coal industries accounted for nearly 80% of the total industrial solid waste produced in the country. In 2012, China produced about 3.3b tonnes of industrial solid wastes, of which 34m tonnes were non-hazardous (c.1.1%). To monitor the environmental impact from the huge amount of industrial waste, the government has implemented an industrial waste reporting policy requiring local environmental protection bureaus to report the type, amount, and treatment method of waste produced. Unqualified waste disposal will be subject to one-off discharge fees in the RMB5-1,000/tonne range.

China's industrial solid waste production vs. municipal waste collected



Source: MoEP

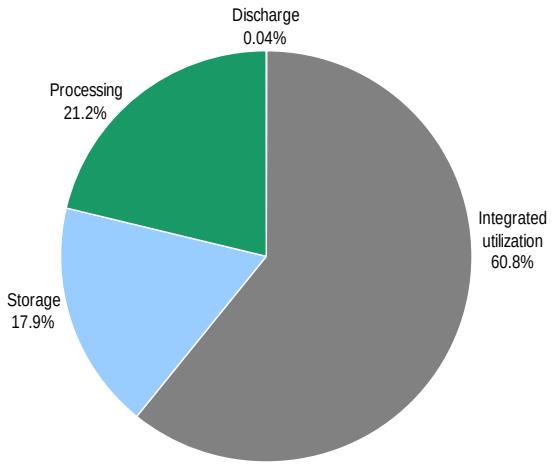
China's industrial waste production share by industry (2011)



Source: NBSC, CCBIS Research

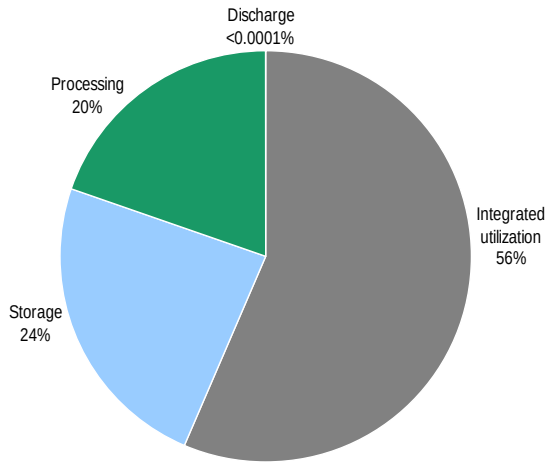
Industrial waste can be processed in-house, outsourced, stored, recycled or disposed. Of these options, integrated utilization is the major solution accounting for about 61% of total treatment method, followed by processing at 21% and storage at 18%. Hazardous waste, which represents 1.1% of total industrial waste produced, is mostly utilized (c.56%) in the country. Another 20% is processed via sanitary landfill, incineration, solidification, or chemical detoxification. Current government tipping fees on hazardous waste landfills, incineration, and physiochemical processing are RMB2,000-3,500/tonne, RMB2,500-4,000/tonne, and RMB1,000-1,800/tonne, respectively. Compared with the RMB50-130/tonne tipping fee and extra RMB0.65/kWh on-grid tariff for municipal waste, our calculation shows that potential levered IRR could be higher for HWT projects, ranging from 15-20% versus 10-15% for WTE projects.

China's industrial waste treatment methodology (2012)



Source: MoEP, CCBIS estimates

China's HWT methodology (2012)



Source: MoEP, CCBIS estimates

Potential return of WTE and HWT projects

Project return	WTE	HWT
Initial investment		
Waste processing capacity (tonne/day)	1,000	58
Investment (RMB/tonne)	560,000	1,300,000
Operation period	25	25
Capital structure (%)		
Debt ratio	67	67
Equity ratio	33	33
Cost of debt	6.5	6.5
Cost of equity	11.0	11.0
Debt period (year)	10	10
Operation matrix		
Construction period (month)	18	15
Capacity utilization rate (%)	80	30
Power conversion (KWh/tonne of waste)	280	nil
Waste processing fee (RMB/tonne)	70	2,500
On-grid power tariff (RMB/KWh)	0.65	nil
Gross margin (%)		
Year 1-3	30	50
Year 4-6	50	60
Year 7+	70	70
Opex ratio	7	7
Electricity VAT rebate	17	nil
Interest rate (%)		
Year 1-2	0.0	0.0
Year 3+	6.5	6.5
Tax rate (%)		
Year 1-3	0	0
Year 4-6	12.5	12.5
Year 7+	25	25
BOT levered IRR	14	17

Source: CCBIS estimates

Due to a lack of industry statistics it is difficult to accurately gauge the size of China's total waste treatment market. However, based on a few rough assumptions, we believe the potential scale of China's HWT market to be roughly similar to that of living waste treatment.

To gauge the approximate scale of China's hazardous and municipal waste treatment processing markets we have made a few basic assumptions. We assume 20% of total industrial hazardous waste produced is being processed and that an average processing fee of RMB2,800/tonne, RMB2,500/tonne, and RMB1,500/tonne is being applied for hazardous waste incineration, landfill, and physicochemical/solidification processing. Thus, we arrive at a hazardous waste processing market scale of RMB16.7b for 2012, roughly 1.1x the size of the living waste processing scale. We consider China's hazardous market as a new growth engine for waste treatment operators like CEI.

China's solid waste processing market scale analysis

As at the end of 2012	Worst case	Base case	Best case
Industrial hazardous waste			
Annual hazardous waste production (m tonnes)	35	35	35
Share of hazardous waste processed (%)	20	20	20
Annual hazardous waste processed (m tonnes)	7	7	7
Of which: Incineration mix (%)	*20*	*20*	*20*
Incineration processing fee (RMB/tonne)	2,500	2,800	4,000
Incineration processing scale (RMB m)	3,465	3,881	5,544
Of which: Landfill mix (%)	*65*	*65*	*65*
Landfill processing fee (RMB/tonne)	2,000	2,500	3,900
Landfill processing scale (RMB m)	9,010	11,262	17,569
Of which: Physicochemical, solidification and others mix (%)	*15*	*15*	*15*
Physicochemical/solidification/others processing fee (RMB/tonne)	1,000	1,500	2,500
Physiochemical/solidification/others processing scale (RMB m)	1,040	1,559	2,599
Total industrial hazardous waste processing scale (RMB m)	13,514	16,702	25,712
Municipal solid waste			
Annual MSW production (m tonnes)	171	171	171
Share of waste processed (%)	85	85	85
Annual MSW processed (m tonnes)	145	145	145
Of which: Incineration mix (%)	*21*	*21*	*21*
Incineration processing fee (RMB/tonne)	50	80	155
Power conversion (kWh/tonne)	280	280	280
Annual power generation for external sales (GWh/year)	7,256	7,256	7,256
On-grid tariff (RMB/kWh)	0.65	0.65	0.65
Incineration processing market scale (RMB m)	6,241	7,156	9,443
Of which: Landfill mix (%)	*74*	*74*	*74*
Landfill processing fee (RMB/tonne)	25	70	150
Landfill processing scale (RMB m)	2,686	7,521	16,116
Of which: composting and others mix (%)	*5*	*5*	*5*
Composting and others processing fee (RMB/tonne)	–	–	–
Composting processing scale (RMB m)	–	–	–
Total MSW processing scale (RMB m)	8,927	14,677	25,558

Note: Calculation exlucidng highly poisonous industrial wastes and hazardous living wastes

Source: MoEP, CCBIS Research

Due to more stringent controls on environmental pollution and emission standards by local authorities, we expect to see more industrial players resort to external waste treatment operators instead of self-processing their own waste. Smaller and inefficient waste treatment operators that failed to meet emission standards are likely to be replaced and crowded out by the larger more established players in the market.

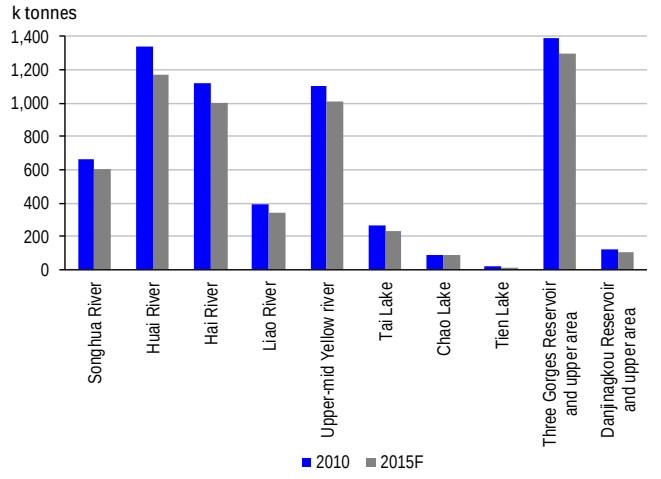
We believe large SOEs with solid track records, low funding costs, and strong government connections will be best positioned to profit from the government's newfound enthusiasm for environmental protection and the more stringent government requirements that are bound to come about. The SOEs, with their size and resources, have the added advantage of being able to use their existing businesses, specifically the technologies and contacts used in those businesses, as a platform to enter new higher-growth business areas in the medium term. Despite potentially higher volume volatility from the amount of waste produced by large industrial companies, we expect to see waste names like CEI, with solid project execution records, technological expertise, and close government connections, to be the first to make the leap to new project types in 2013-2015F. In the long run, we see opportunities emerging in southwestern China, a center for ferrous metals mining and refining. Despite the pollutants generated from these industries, the waste treatment methods used at these sites lags the rest of the country.

Environmental and water renovation projects an extra driver

In light of severe and continuous water contamination in China's key water basins, the government has committed itself to purifying these water sources first by lowering their COD and ammonia nitrogen content. The focus at the beginning will be China's major river areas. As at the end of 2010, over 56% of China's 398 rivers and 80% of its 86 lake reservoirs remained below Standard III (Standard II is drinking water-equivalent) on COD, permanganate, and phosphorus content. The 12th FYP stipulates that by 2015F, overall water quality should be improved by 5% for Standard I-III and by 8% for Standard V. The general water quality of key basins is to improve from "medium pollution" to "light pollution". To control and preserve the country's scarce water resources, the government plans to invest RMB99b in 1,057 comprehensive regional water renovation projects in 2011-2015F, part of a total investment of RMB346b towards water conservation and treatment projects.

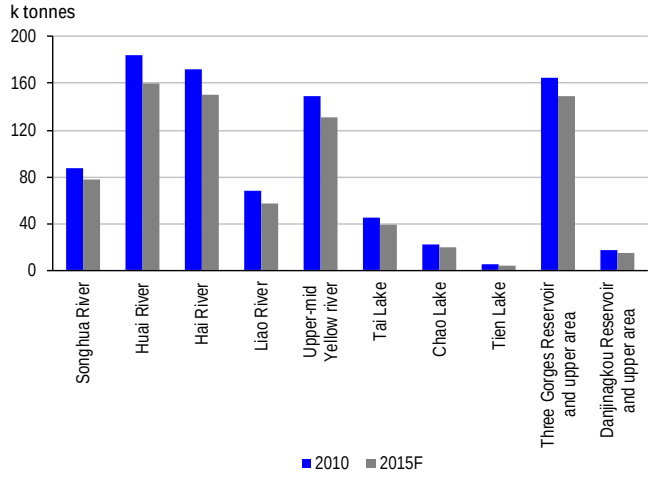
According to the MoEP's annual water quality examination of key water basins, by 2012, only 27% of water projects planned for 2011-2015F had been completed, far below what is outlined in the 12th FYP. We believe business opportunities will emerge for large water treatment players such as BEW once local authorities begin to scramble to meet the MoEP's assessment each year. These authorities, who will lack the expertise to solve their communities' water pollution issues, will turn to external help.

China's 12th FYP target for COD emissions



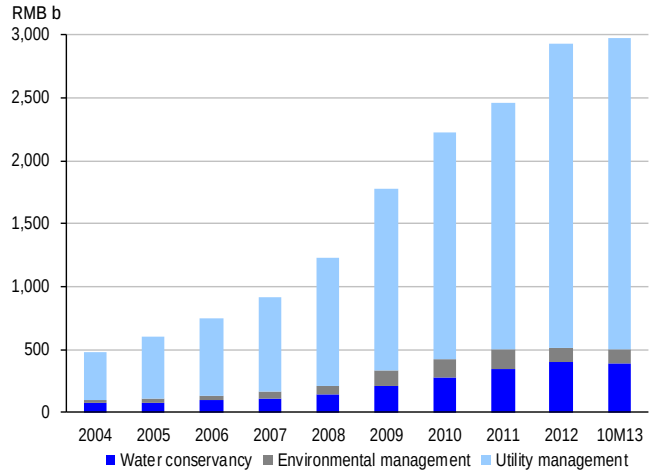
Source: MoEP

China's 12th FYP target for ammonia nitrogen emissions



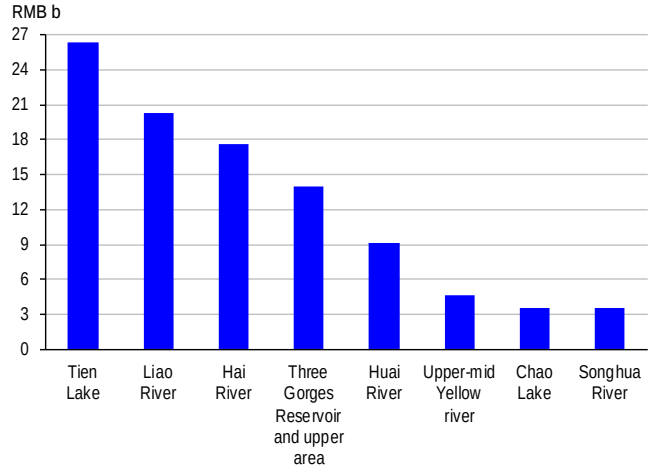
Source: MoEP

China FAI in water conservancy, environment and utility management (2004-10M13)



Source: NBSC

China's investment in regional water renovation projects (2015F)



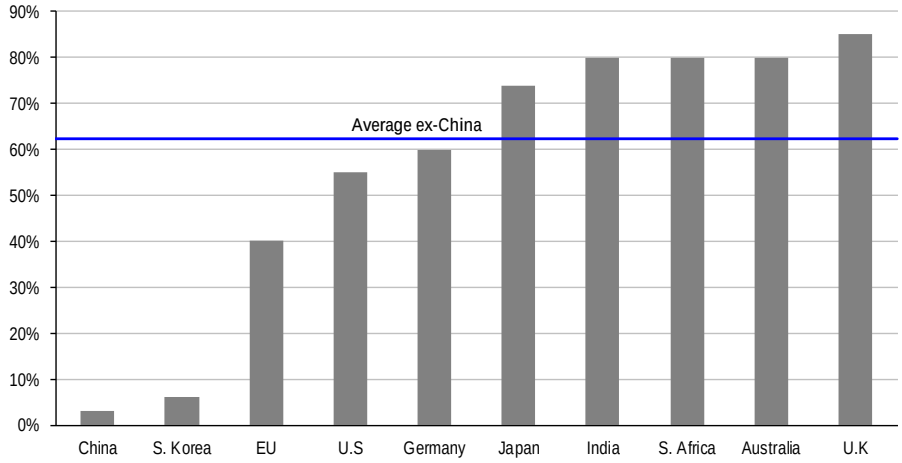
Source: MoEP

A medium-to-long term theme: sludge treatment, water reclamation and desalination

China plans to add 5.2m tpd and 26.8m tpd of new sludge treatment and reclaimed water capacity in 2011-2015F. China is behind in the development of these two types of businesses, mainly because of a lack of regulations and financial support. According to MoHURD, sludge treatment and reclaimed water facility additions up to the end of 2012 had only fulfilled 27% and 26% of the government's 12th FYP, far short of the progress being made in other WWT segments: 32% for WWT pipe network construction, 33% for WWT facility upgrades, and 39% for WWT capacity additions.

In view of the continuing development of WWT plants, we see an ancillary need for the government to provide concrete policy support to encourage proper sludge treatment and utilization over the medium term. MoHURD statistics reveal that 80% of the sludge produced from WWT merely went through preliminary treatment, including dehydration and thickening, before being transported to landfills. In China, less than 3% of total sludge is used in agriculture or as cement kiln/power generation alternative fuels. This is very poor considering the global average sludge utilization rate is 62%. Clearly, there is enormous room for sludge treatment and utilization to grow in the medium-to-long term. With growth comes the potential to be another income stream for WWT players with large operating capacities.

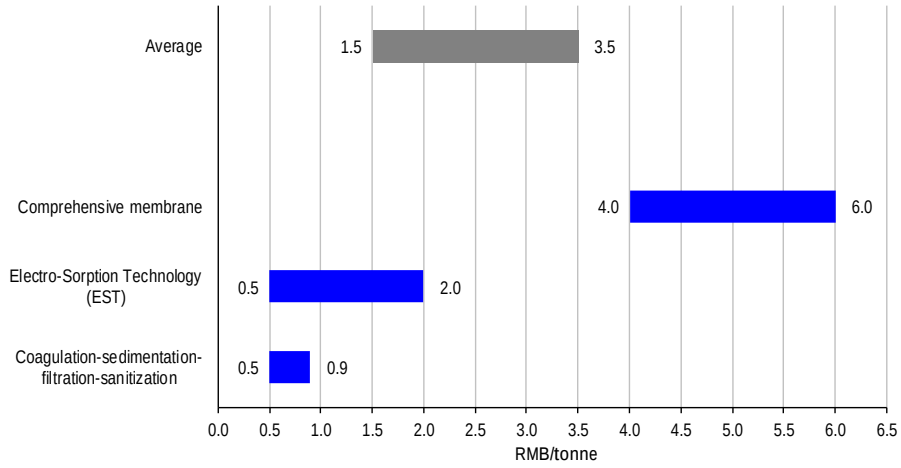
Global sludge utilization rate (2012)



Source: ADB, MoHURD, CCBIS Research

Water reclamation is another area the government is intent on improving. It recently raised its target for reclaimed water use from 15% to 20% by 2015F. We believe the market will take off once the government makes pricing more flexible and offers subsidies for reclaimed water. Average reclaimed water production cost is RMB1.5-3.5/tonne, higher than average reclaimed water tariff of RMB0.9-1.5/tonne, while the price-cost gap is subsidized by local governments. We anticipate further policies related to tax benefits, the encouragement of technological progress, and a more flexible pricing mechanism, all geared to promoting massive production of reclaimed water over the medium term.

China's reclaimed water production cost



Source: H_2O China, CCBIS Research

To increase the national clean water supply, China plans to increase its desalination capacity three-to-four fold, achieving 2.2-2.6m tpd by 2015F. However, due to (1) the high production cost of RMB4.0-5.0/tonne, (2) immature core technologies, and (3) domestic players lacking experience in massive development, this market is unlikely to take off in the near term. Technologies will first have to improve and drive costs down, end-user tariffs will have increase, and the subsector will need greater policy support.

Major WWT methodologies comparison

	ASP	Oxidation	SBR	Membrane	AB
Reliability	High	Medium	Medium	Low	Medium
Treatment efficiency	Medium	High	High	High	Medium
Operating costs	Medium	High	Medium	High	Low
SS removal effect	Good	Good	Very good	Very good	Very good
COD removal effect	Medium	Good	Good	Good	Good
BOD removal effect	Very good	Very good	Very good	Very Good	Very good
Space requirement	Medium	Medium	Small	Smallest	Large
Processing complexity	Medium	Medium	Easy	Easy	Complex
Energy consumption	High in general but lower on commercial scale	High	Low	High	High
Plant size suitability	Large	Small and medium	Small and medium (optimal for industrial and sequential waste water discharge)	Small	Large (optimal for highly concentrated waste water treatment)
Capex/tonne (RMB)	1,000-2,000	3,000-4,000	2,000-3,000	1,000-2,000	5,000-6,000
Market share (%)	35-40	20-30	10-15	N/A	N/A

Source: CCBIS Research

Major WTE methodologies comparison

	Grate furnace	Revolver	Circulating fluidized bed (CFB)
Technology	Foreign	Foreign	Domestic
Capex/tonne (RMB '000)	400-500	250	250-300
Reliability	Medium	Low	High
Heat efficiency	High	Low	High
Auxiliary fuel consumption	Nil	High	Low
Pollution	Low	High	Medium

Source: CCBIS Research

China Everbright International (257 HK)

Trash-to-cash

- **We believe China Everbright International (CEI) will be a clear winner as China's builds up its WTE infrastructure.** CEI is our top pick within the sector given its strong project inflow momentum coupled with comparably higher earnings visibility versus peers. We believe the market has underestimated the potential growth that can be derived from penetrating new geographical bases and business segments.
- **Enlarging the project base by tapping new markets.** With most waste-to-energy (WTE) projects in eastern China having moved beyond their initial rapid development phase, we believe CEI and its peers are looking further afield for growth opportunities, to mid- and western China. Its pipeline for expansion projects will be another source of growth after 2015F.
- **Breaking into new business segments will fuel earnings growth over the medium term.** CEI secured 9 waste and water projects YTD, of which 4 were hazardous waste projects (including a medical waste project). We expect CEI to generate higher returns from these new businesses based on its track record.
- **We initiate coverage with an Outperform rating and HK$9.90 target price.** Current valuation of 20x 2014F P/E is at a higher bound of the historical average; however, near-term de-rating risk is low. We believe the street has yet to fully factor in growth from new business segments and wider geographical exposure. We expect more project wins in the coming 6-12 months. Our DCF-based target price of HK$9.90 implies 17% potential upside.

Forecasts and valuation

Year to 31 December	2011	2012	2013F	2014F	2015F
Revenue (HK$m)	3,487	3,410	5,587	7,755	7,279
YoY (%)	19.0	(2.2)	63.8	38.8	(6.1)
Net profit (HK$m)	801	1,123	1,246	1,740	2,064
YoY (%)	30.0	40.2	10.9	39.6	18.7
Diluted EPS (HK$)	0.217	0.295	0.308	0.429	0.509
YoY (%)	30.0	36.0	4.4	39.4	18.7
P/E (x)	38.3	28.2	27.0	19.4	16.3
P/B (x)	4.9	4.0	3.6	3.1	2.7
DPS (HK$)	0.05	0.06	0.07	0.10	0.13
Yield (%)	0.5	0.7	0.9	1.2	1.5
ROE (%)	13.9	15.5	14.1	17.3	17.9

Source: Company data, CCBIS estimates

Company Rating: Outperform
(initiation)

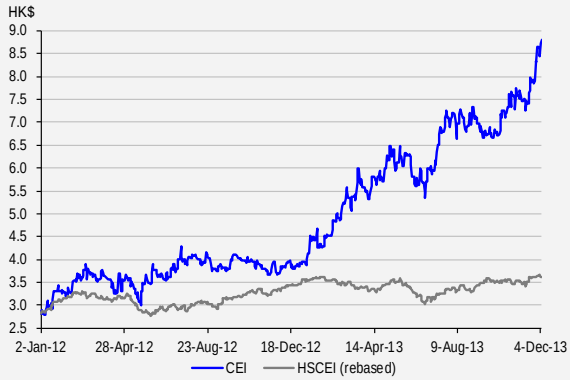
Price: HK$8.44
Target: HK$9.90
(initiation)

Trading data

52-week range	HK$3.72-8.93
Market capitalization (b)	HK$35.7b/US$4.6
Shares outstanding (m)	4,054
Free float (%)	56
3M average daily T/O (m share)	10.0
3M average daily T/O (US$m)	9.5
Expected return – 1 year (%)	17

Price as at close on 3 December2013

Stock price and HSCEI



Source: Bloomberg

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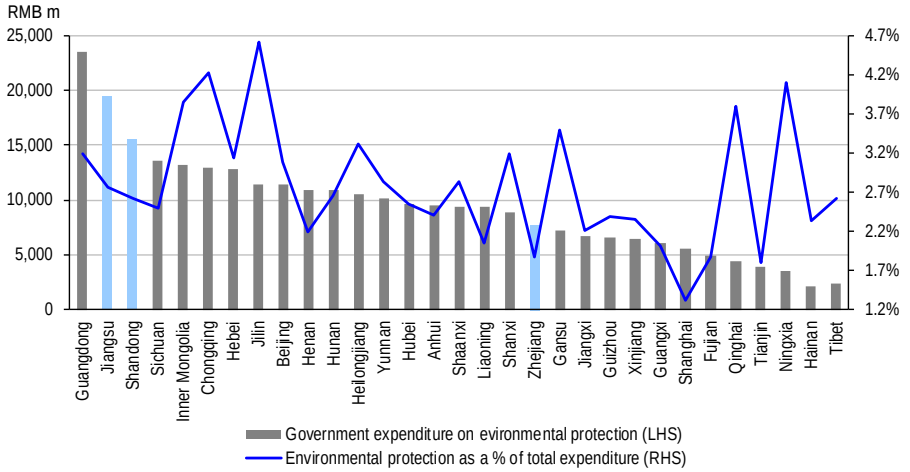
Multiple growth engines

Strong project win momentum to continue in waste projects

CEI has a strong presence in Jiangsu, Zhejiang, and Shandong provinces where local governments are financially strong and supportive of clean energy and the environmental protection industry. Jiangsu and Shandong are two of the top-three provinces in absolute spending on environmental protection in 2012. The supportive environment has allowed CEI to continue to expand rapidly. It has won 9 projects since the beginning of 2013, including 8 waste projects (one of which includes a medical waste project) and 1 water project. Excluding potential Phase II projects, these command a total investment of RMB2.1b and will add about 2,440 tpd in waste incineration, 1,120m^{3}pa in waste landfill and 30,000m^3 in WWT capacities. Taking into account the 9 projects acquired in 2012 and the 9 new projects obtained YTD, we forecast revenue from waste projects to grow at a 49% CAGR in 2013-2015F, translating to 33% core earnings CAGR for the period.

CEI – government spending on environmental protection (2012)

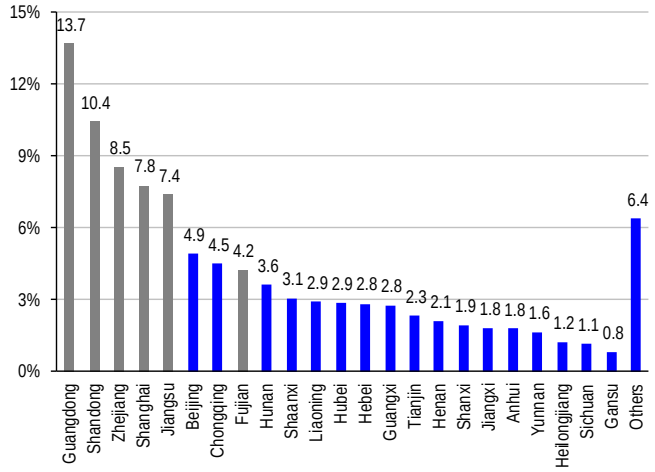


Source: MoF, CCBIS Research

Expanding into new regions to expedite growth

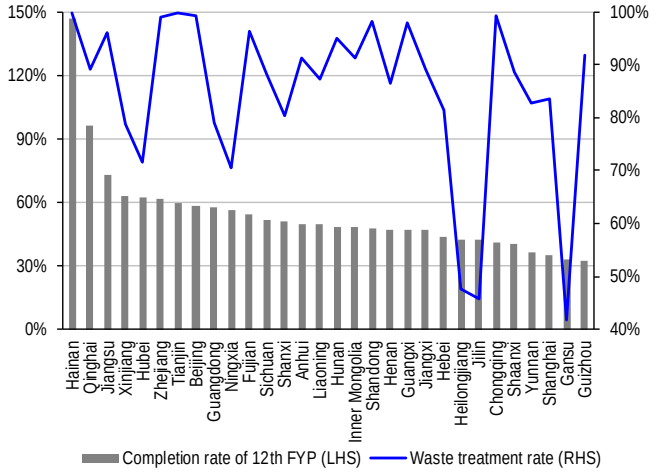
By the end of 2012, 19 out of China's 32 major provinces and administrative zones had yet to complete 50% of their 2015F waste treatment capacity expansion targets stipulated provided in the municipal solid waste goals of the 12th FYP. According to the 12th FYP, between 2010 and 2015F, about 52% of new WTE capacity, or 35% of total overall waste treatment capacity, is to be constructed in China's coastal areas including Guangdong, Shandong, Zhejiang, Jiangsu, Shanghai, and Fujian. Central China (i.e. Hubei, Shanxi, Anhui, Hebei, Henan, and Jiangxi) and western China will account for 28% of total new WTE capacity for the period. As the large WTE projects in the east mature, CEI will begin to extend its limbs to greenfield provinces to secure lucrative new projects. CEI has signed eight framework agreements with local governments YTD to invest in environmental protection parks or waste projects in Jiangsu, Jiangxi, Sichuan, Beijing, Shandong, and Guangdong. Jiangxi and Sichuan will be the first sites to begin construction. We expect to see strong project inflows upon the formalization of the agreement terms in the coming years.

China's MSW incineration new capacity mix by province (2011-2015F)



Source: State Council, CCBIS Research

Provincial MSW treatment progress (2012)



Source: MoHURD, CCBIS Research

CEI – framework agreement signed YTD

Date	Location	Province	Project	Investment	Business opportunities
15 May 2013	Shenzhen Municipality	Guangdong	National/provincial environmental protection industrial parks	TBD	Waste disposal and treatment, solar and wind projects, urban WWT, environmental R&D, establishment of industry standards and environmental science education in Shenzhen and surrounding areas
29 May 2013	Shouguang Municipality	Shandong	Environmental protection industrial park	TBD	Alternative energy, HWT, sludge treatment, and urban water projects, etc.
31 Jul 2013	Beijing Municipality	Beijing	Direct investment	TBD	Waste treatment and chance to help develop Beijing's environmental protection industry
3 Oct 2013	Nanjing Jiangning District	Jiangsu	51% JV investment in Nanjing Jiangnan Veinous Industrial Park	TBD	Provide financial and technical support to new environmental protection projects in the industrial park
23 Oct 2013	Yibin city	Sichuan	Contracted Environmental Services	RMB2.0b	MSW and food waste treatment, urban WWT, water resource conservation, land remediation, solar and wind projects, and environmental consultation/assessment
6 Nov 2013	Zhenjiang New District	Jiangsu	Contracted Environmental Services	RMB2.0b	WWT consulting/assessment, reusable water, food waste and MWS treatment and land remediation
6 Nov 2013	Ganzhou city	Jiangxi	Environmental protection and ecological industrial park	TBD	Equipment manufacturing, municipal WTE, industrial waste & food waste treatment, alternative energy projects, mine management and land remediation
6 Nov 2013	Lianyungang Xuwei New District	Jiangsu	Veinous Industrial Park	US$95m	Integrated waste treatment, HWT, equipment manufacturing and solar projects

Source: Company, CCBIS Research

Rich expansion project pipeline to support earnings after 2015F

To date, CEI has about 3,450 tpd in WTE expansion projects in its pipeline, which is about 16% of the total capacity of announced projects since 2005, or 42% of total WTE capacity in operation as at the end of 2012. We expect these expansion projects to underpin earnings after 2015F and generate RMB2.3b in construction revenue for the company. We are sanguine towards China's waste treatment market over the medium term and our earnings forecasts factor in project wins equivalent to 7k tpd between 2015F and 2017F..

CEI – projects in operation, construction, and preparation

Projects as of November 2013	Province	Contract	Capacity	Investment (RMB m)
In operation				
Waste incineration (including WTE)			9,650	4,572
Landfill/HWT			852	217
WWT			1,725	2,900
Reusable water			57	148
Subtotal				7,838
Under construction				
Nanjing WTE	Jiangsu	BOT	2,000	1,030
Pizhou WTE Phase 1	Jiangsu	BOT	600	330
Ningbo Beilun WTE Phase 1	Zhejiang	BOT	1,000	560
Shouguang WTE Phase 1	Shandong	BOT	600	339
Sanya City WTE Phase 1	Jiangsu	BOT	600	186
Binhai Hazardous Waste Landfill	Jiangsu	BOT	600	186
Zhangqiu WWT	Shandong	BOT	30	61
Zibo Ceramic Tech Park Heat Pump	Shandong	BOO	0	93
Hanshan biomass	Anhui	BOO	184	320
Subtotal				3,140
In preparation				
Huidong WTE	Guangdong	BOT	600	334
Yixing WTE Phase 2	Jiangsu	BOT	300	151
Wujiang WTE	Jiangsu	BOT	1,500	890
Boluo County WTE Phase 1	Guangdong	BOT	700	417
Weifang City WTE Phase 1	Shandong	BOT	1,000	586
Ningbo Ninghai WTE Phase 1	Zhejiang	BOT	700	360
Rizhao WTE Phase 1	Shandong	BOT	600	350
Heze WTE Phase 1	Shandong	BOT	600	350
Zhenjiang WTE Phase 2	Jiangsu	BOT	400	200
Zibo Qilu HWT	Shandong	BOO	110	400
Lianyungang Suzukigumi Hazardous Waste + Medical Waste	Jiangsu	BOT	29	80
Lianyungang Guanyuan Hazardous Waste Landfill Phase 1	Jiangsu	BOT	300	109
Shouguang Integrated Hazardous Waste Phase I	Shandong	BOT	500	157
Dezhou Nanyunhe WWT Phase 2	Shandong	BOT	75	80
Zibo Reusable Water Phase 2	Shandong	BOO	0	11
Subtotal				4,475
Expansion project pipeline				
Pizhou WTE Phase 2	Jiangsu	BOT	400	220
Ningbo Beilun WTE Phase 2	Zhejiang	BOT	500	280
Sanya City WTE Phase 2	Hainan	BOT	350	213
Boluo County WTE Phase 2	Guangdong	BOT	350	208
Shouguang WTE Phase 2	Shandong	BOT	400	226
Weifang City WTE Phase 2	Shandong	BOT	500	293
Ningbo Ninghai WTE Phase 2	Zhejiang	BOT	350	180
Rizhao WTE Phase 2	Shandong	BOT	300	175
Heze WTE Phase 2	Shandong	BOT	300	175
Lianyungang Hazardous Waste Landfill Phase 2	Jiangsu	BOT	200	41
Suqian Hazardous Waste Landfill Phase 2	Jiangsu	BOT	113	33
Shouguang Integrated Hazardous Waste Phase II	Shandong	BOT	55	233
Subtotal				2,277

Note: Capacity units for WTE, landfill, WWT, and reusable water projects are tonnes/day, '000 m³/year, '000 m³/day, and '000 m³/day, respectively

Source: Company data, CCBIS estimates

Stepping into HWT markets for new growth

We believe the street has yet to fully factor in the potential project flow from HWT. WTE and WWT projects are likely to remain the main markets for CEI, yet new business opportunities such as industrial hazardous waste and medical waste treatment will become additional pillars supporting CEI's earnings growth over the medium term. CEI has secured 4 hazardous waste projects year-to-date (including a medical waste project) compared with 1 in 2012. These 4 projects entail an investment of RMB823m excluding a potential Phase II, or 40% of total investment for waste projects secured in 2013. CEI has just begun to penetrate these new business areas. As it does so, we believe it will evolve into an integrated waste treatment solution provider.

Despite the fact that HWT projects present a higher technological barrier to entry, a heavier initial investment requirement, and involve earnings volatility risk, we are not particularly concerned about CEI's project execution and management risk given CEI's (1) solid track record in project execution; (2) more stringent emission standard (CEI's WTE plants have adopted the higher EU 2000 standard versus the National Standard 2000 requirement); and (3) low funding cost. We saw very little additional risk after CEI secured its first Suqian hazardous waste landfill project in February 2011 and we expect to see earnings accretion once the company begins to push further into this new market given the potentially higher return of HWT projects versus WTE projects. We expect the company to generate 10-15% levered IRR from its WTE projects and a 15-20% levered IRR from its hazardous/medical waste projects (assuming 1/3:2/3 equity to debt). The company will be able to leverage its strong connections with the government and technological expertise to move into businesses that go beyond its core competency.

The food waste industry chain is gradually developing in China but unlike the industrial waste market, which is so essential to CEI's prospects, the food waste industry is not high on CEI's priority list as China still lacks adequate food waste-specific collection facilities and has immature sorting systems. We expect food waste management to have a relatively small impact on waste operator earnings.

CEI – calculation of levered IRR for sample WTE and HWT projects

Project return	WTE	HWT
Waste processing capacity (tonne/day)	1,000	58
Investment (RMB/tonne)	560,000	1,300,000
Power conversion (KWh per ton of waste)	280	nil
Waste processing fee (RMB/tonne)	70	2,500
On-grid power tariff (RMB/KWh)	0.65	nil
Gross margin (%)	50	60
Electricity VAT rebate (%)	17	nil
BOT levered IRR	14	17

Source: CCBIS estimates

Water and alternative energy projects to mitigate concentration risk

While playing its strength in its primary waste business, CEI will not opt out of opportunities in the WWT segment as it is keen to mitigate concentration risk, despite the higher average return WTE projects generate (10-15% levered IRR) compared with WWT projects (8-12% levered IRR). CEI had 1,550 tpd of WWT operating capacity as at the end of 2012 and its water treatment business, including reusable water, accounted for roughly 37% of its total revenue in 2012. As we expect the company to continue to secure new water projects in the coming years, we have factored in 150k tpd in WWT designed capacity equivalent new project wins in 2015-2017F. However, as we expect gathering momentum from strong waste project inflows in the coming years and the fact that water business is not a priority to the company, we anticipate revenue mix of water projects at the company will slide from 37% in 2012 to 15% in 2015F.

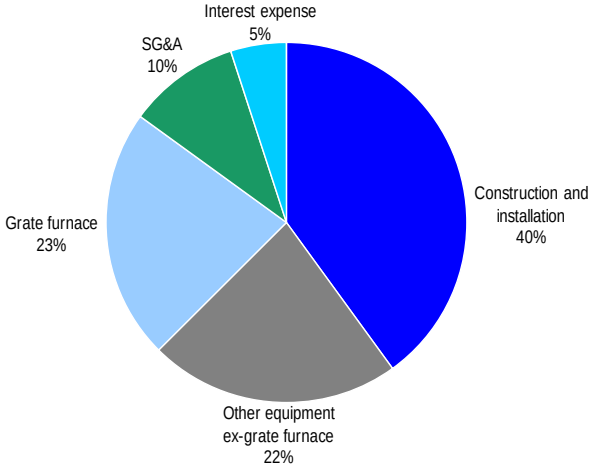
Another reason CEI is likely to pursue new WWT projects is that such projects tend to bolster the company's influence in the affected regions by strengthening the bonds between CEI and local governments. Most WWT contracts are won or lost on three factors: (1) project execution track record, (2) funding support, and (3) political connections. Because CEI is strong in all three areas, we believe it will be able to exert the influence derived from its WWT projects to secure additional waste projects. For instance, CEI's existing Shandong Zibo water projects (WWT and reusable water) helped it win a HWT project in the same city; its smooth execution of a WWT project in Shandong Jinan helped it secure a WTE shortly thereafter.

CEI's other projects such as its biomass projects, wind, and solar projects no longer figure prominently on the company's balance sheet. We expect these segments to represent less than 5% of CEI's total income by 2015F. In the meantime, CEI will continue to invest resources in waste and water.

Higher project returns on self-assembled equipment

Equipment accounts for 45% of total project investment, of which grate furnaces are about half the equipment cost. CEI began using its self-assembled grate furnaces in 2011 at its Suzhou WTE plant. Now the company is ramping up production capacity for its in-house 500-tonne incinerators. A total of 6 new self-assembled grate furnaces will be applied in its Nanjing and Ningbo WTE plants and the company sees the possibility of external equipment sales as early as 2014F. In the long term, we believe self-assembled equipment will be able to improve project returns; however, we have yet to factor in external equipment sales in our model given that production is still in the early stages. This suggests potential upside to our 2014-2015F EPS forecasts.

CEI – investment cost breakdown



Source: Company data, CCBIS Research

Earning sensitivity analysis

Our sensitivity analysis to key drivers reveals that CEI's earnings are most vulnerable to changes in WTE plant utilization rates. Waste projects are projected to account for c.64% of the company's 2014F gross profit. We calculate that for every 5.0% increase in overall WTE plant utilization 2014F earnings would move up 2.1%. A 5.0% increase in WTE on-grid tariffs would lift our earnings forecast by 1.1%.

Waste water treatment, CEI's second-largest business segment, is projected to contribute about 26% of the company's gross profit in 2014F. We estimate a 5% increase in WWT tipping fees or else a 5% hike in our WWT plant utilization rate assumption, would improve our 2014F earnings forecast by 0.9%. Per the nature of debt leveraging on project development, CEI's earnings are also relatively sensitive to interest rate changes; a 25bp change in the interest rate would move our earnings forecasts by 0.9%.

CEI – earnings sensitivity to key drivers

Earnings sensitivity	Change (%)	2014F earnings
WTE		
WTE tipping fee	+/-5%	+/-0.6%
On-grid tariff	+/- 5%	+/-1.1%
Utilization	+/-5ppt	+/-2.1%
WWT		
WWT tipping fee	+/-5%	+/-0.9%
Utilization	+/-5ppt	+/-0.9%
Interest rate	+/-25bps	-/+0.8%

Source: CCBIS estimates

Valuation

We initiate coverage on CEI with an Outperform rating and HK$9.90 target price that translates to 17% upside potential. We arrive at our target price after factoring in an 8.0% WACC, 3% terminal growth rate, and 7k tpd and 150k tpd in new WTE and WWT capacity additions in 2015-2017F. In our view, DCF is an appropriate valuation methodology given the earnings lumpiness during different project development phases and taking into account the special accounting treatment effect of BOT/BT projects.

CEI – DCF valuation matrix

DCF (HK$m)	
Risk-free interest	4.0%
Risk premium	8.0%
Beta	0.9
Cost of equity	11.1%
Cost of debt	5.5%
Equity ratio	55%
Debt ratio	45%
Effective tax rate	25%
WACC	8.0%
Terminal growth rate	3.0%
Discount FCF per share (2015-2020F)	2.71
Terminal value per share (after 2020F)	8.55
Total discounted FCF per share (firm value)	11.26
Less: net debt per share (end 2014F)	(1.26)
Less: minority interest per share (end 2014F)	(0.10)
Total discounted FCF per share (equity value)	9.90

Source: CCBIS estimates

CEI is currently trading at 20x P/E on our 2014F EPS forecasts. We acknowledge the stock is trading at the higher-bound of its historical average; however, we believe the stock is trading at a premium to its historical average P/E for the past three years for sound reasons and do not see any near-term de-rating risk given (1) continuous project inflows from higher return waste projects, (2) tier-one SOE players deserve a premium to private regional players given their better access to higher-return projects and their faster EPS growth, (3) M&A opportunities favor tier-one players, and (4) a structural growth story with limited policy downside in 2014F.

CEI – 12-months rolling P/E bands

Source: Company data, CCBIS estimates

CEI – 12-month rolling P/B bands

Source: Company data, CCBIS estimates

Risks

Key downside risks to our call are (1) construction delays at existing and pipeline projects, (2) slower-than-expected penetration into greenfield provinces and new business areas, (3) on-grid tariff and tipping cuts, and (4) rising interest rates.

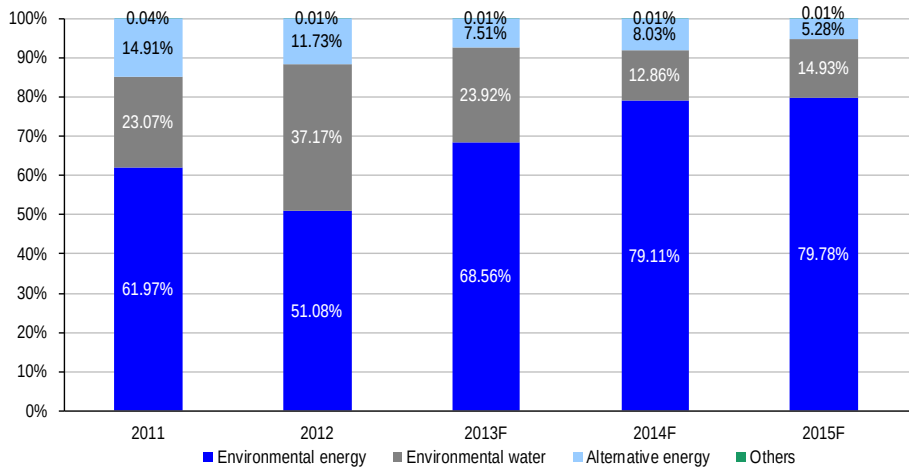
Catalysts

Near-term share price catalysts include: (1) lucrative waste/water project wins, (2) faster-than-expected ramp-up of new plant utilization, and (3) more favorable policies in support of the waste/water treatment industry.

Business profile

CEI entered the water business in 2003 and a year later, in 2004, the waste business. CEI is a state-owned enterprise and an industry leader within China's waste treatment sector. It has a strong foothold in China's coastal areas including Jiangsu, Zhejiang and Shandong provinces. It recently entered the provinces of Guangdong, Hainan, and Anhui. By the end of 2012, the company had daily designed capacity of 8,150 tonnes of WTE and 1,550 tonnes of WWT. It was also engaged in other renewable energy projects including solar, wind, and biomass power generation.

CEI – revenue mix in 2011-2015F



Source: Company data, CCBIS estimates

CEI – key assumptions

Year ended 31 December (HK$m)	2011	2012	2013F	2014F	2015F
Operating daily designed capacity					
WTE (tpd)	8,150	8,150	9,650	15,550	20,950
Waste landfill/HWT (tpa)	512	512	852	1,752	2,362
WWT (tpd)	1,550	1,550	1,725	1,830	1,880
Power generation (GWh/year)					
WTE	553	825	903	1,155	1,690
Alternative energy	243	247	247	431	431
Blended tariff (RMB/tonne)					
WTE					
On-grid tariff	0.60	0.65	0.65	0.65	0.65
Tipping fees	82.4	79.1	79.8	80.7	82.5
HWT	N/A	N/A	1,000	1,000	1,300
WWT	1.17	1.16	1.16	1.15	1.14
Alternative energy					
MTE	0.65	0.65	0.65	0.65	0.65
Solar	1.51	1.91	1.91	1.91	1.91
Biomass	0.75	0.75	0.75	0.75	0.75

Source: Company data, CCBIS estimates

CEI – income statement

Year ended 31 December (HK$m)	2011	2012	2013F	2014F	2015F
Revenue	3,487	3,410	5,587	7,755	7,279
Direct costs and operating expenses	(2,048)	(1,726)	(3,336)	(4,709)	(3,818)
Gross profit	1,438	1,684	2,250	3,046	3,460
Other revenue	59	107	132	181	239
Other income/(loss)	(1)	(10)	–	–	–
Administrative expenses	(236)	(297)	(403)	(521)	(467)
Valuation gains on investment properties	–	–	–	–	–
Operating profit	1,260	1,483	1,979	2,706	3,232
Finance costs	(241)	(313)	(323)	(395)	(490)
Pretax profit	1,020	1,171	1,655	2,311	2,742
Income tax	(255)	(267)	(377)	(526)	(624)
Net profit for the year	845	1,154	1,278	1,785	2,118
Minority interests	(44)	(31)	(32)	(45)	(53)
Net profit attributable to shareholders	801	1,123	1,246	1,740	2,064
Diluted EPS (HK$)	0.217	0.295	0.308	0.429	0.509
Revenue growth (%)	19.0	(2.2)	63.8	38.8	(6.2)
Operating profit growth (%)	23.2	17.7	33.4	36.8	19.4
Net profit growth (%)	30.0	40.2	10.9	39.6	18.6
Gross margin (%)	41.3	49.4	40.3	39.3	47.6
Operating margin (%)	36.1	43.5	35.4	34.9	44.4
Net margin (%)	23.0	32.9	22.3	22.4	28.4

Source: Company data, CCBIS estimates

CEI – balance sheet

Year ended 31 December (HK$m)	2011	2012	2013F	2014F	2015F
Inventories	43	65	105	148	84
Other receivables, deposits and prepayments	1,016	1,207	1,990	2,550	1,993
Gross amounts due for contract work	553	644	906	1,307	1,790
Tax recoverable	–	26	26	26	26
Pledged bank deposits	216	46	46	46	46
Deposits with bank	–	943	943	943	943
Cash and cash equivalents	1,684	1,807	2,237	2,881	3,600
Current assets	3,513	4,739	6,254	7,902	8,483
Property, plant, and equipment	888	1,471	1,658	1,836	1,958
Intangible assets	1,070	614	642	669	695
Goodwill	46	21	21	21	21
Other financial assets	184	197	197	197	197
Other receivables and deposits	2,203	2,625	2,362	2,126	1,913
Gross amounts due for contract work	5,963	6,890	8,792	11,371	13,782
Deferred tax assets	13	28	28	28	28
Non-current assets	10,366	11,844	13,698	16,247	18,593
Total assets	13,880	16,583	19,952	24,149	27,081
Short-term bank borrowings	1,064	1,635	1,993	2,514	3,033
Other payables and accrued expenses	1,423	1,191	2,285	3,225	2,718
Current taxation	52	58	58	64	70
Current liabilities	2,539	2,884	4,337	5,804	5,821
Long-term bank borrowings	4,029	4,369	5,204	6,420	7,630
Other loans	55	–	–	–	–
Loans from ultimate holding company	122	–	–	–	–
Amount due to ultimate holding company	–	–	–	–	–
Deferred tax liabilities	472	659	725	798	838
Non-current liabilities	4,679	5,028	5,929	7,218	8,468
Total liabilities	7,218	7,913	10,266	13,021	14,289
Share capital	368	404	405	405	405
Reserves	5,822	7,946	8,928	10,324	11,930
Shareholders' equity	6,190	8,350	9,333	10,730	12,336
Minority interests	472	321	353	398	451
Total equity	6,662	8,670	9,686	11,127	12,787

Source: Company data, CCBIS estimates

CEI – cash flow statement

Year ended 31 December (HK$m)	2011	2012	2013F	2014F	2015F
Profit before tax	1,020	1,171	1,655	2,311	2,742
+ Depreciation	27	53	71	79	86
+ Amortisation	30	29	22	23	24
- Change in working capital	3	(536)	10	(64)	(369)
+ Change in deferred tax liabilities	173	187	66	73	40
- Change in deferred tax assets	1	(15)	–	–	–
- Tax paid	(255)	(267)	(377)	(526)	(624)
Other	(472)	(912)	(1,640)	(2,338)	(2,192)
Net operating cash flow	528	(290)	(193)	(442)	(294)
Capex	(518)	(628)	(250)	(250)	(200)
Addition of intangible assets	(428)	(103)	(50)	(50)	(50)
Disposal of long-term assets	–	–	(8)	(8)	(8)
Other	72	(331)	–	–	–
Net investing cash flow	(874)	(1,063)	(308)	(308)	(258)
Net change of borrowing	1,326	856	1,193	1,737	1,729
Issue of ordinary shares	2	36	2	–	–
Dividends paid	(128)	(213)	(264)	(343)	(458)
Other	(558)	779	0	–	–
Net financing cash flow	642	1,458	930	1,394	1,271
Beginning cash balance	1,341	1,684	1,807	2,237	2,881
Changes in cash	296	105	430	644	720
Forex effect	47	17	–	–	–
Ending cash	1,684	1,807	2,237	2,881	3,600

Source: Company data, CCBiS estimates

CEI – key financial ratios

Year ended 31 December	2011	2012	2013F	2014F	2015F
Diluted EPS (HK$)	0.217	0.295	0.308	0.429	0.509
EPS growth (%)	30.0	36.0	4.4	39.4	18.6
P/E (x)	38.9	28.6	27.4	19.7	16.6
DPS (HK$)	0.05	0.06	0.07	0.10	0.13
DPS growth (%)	80.0	33.3	18.0	39.4	29.0
Yield (%)	0.5	0.7	0.8	1.2	1.5
BVPS (HK$)	1.7	2.1	2.3	2.6	3.0
P/B (x)	5.0	4.1	3.7	3.2	2.8
EV (HK$m)	36,114	40,089	41,282	43,148	44,877
EBITDA (HK$m)	1,318	1,565	2,072	2,809	3,342
EV/EBITDA (x)	27.4	25.6	19.9	15.4	13.4
Net debt/(cash) (HK$m)	3,409	3,254	4,017	5,110	6,120
Net debt/equity (%)	55	39	43	48	50
Interest cover (x)	5.2	4.7	6.1	6.8	6.6
ROE (%)	13.9	15.5	14.1	17.3	17.9
ROA (%)	6.5	7.4	6.8	7.9	8.1

Source: Company data, CCBIS estimates

Guangdong Investment (270 HK)

Angling for a move

- **A safe stock with potential upside.** We think Guangdong Investment (GDI) has relatively secure earnings with limited downside and potential upside from acquisitions of water and property assets together with a payout ratio hike in 2013-2014F. We like GDI for its highly defensive and visible earnings coupled with its intent exit its strong cash position.
- **New water tariff in 2015-2017F for Hong Kong unlikely to be lowered by much.** Considering the past two service terms where GDI had received satisfactory tariff hikes and given the heavy reliance of Hong Kong on Dongjiang water, we believe the new scheme will allow for reasonable 3-4% tariff growth. Negotiations for the new scheme will kick off early next year and we suggest investor to accumulate before new agreement is finalized in 2H14F.
- **Intent to exit strong cash position via M&A or a higher payout.** GDI is in midst of optimizing its business structure and rid itself off most of its non-core toll-bridge business in 1H13. With an extra HK$424m in disposal gains, an increasing cash position, and steady growth from existing business, GDI has plenty of incentive to issue a higher payout in 2013-2014F or chase acquisitions, especially water and property projects.
- **We initiate with an Outperform rating and target price of HK$8.30.** Our SOTP-derived target price implies 14% potential upside. Valuation seems full but further room exists for earnings upside as we have not factored in any revaluation gains for its properties in our 2013-2015F forecasts. The stock deserves to trade at a higher P/B multiple given ROE rose from 12% in 2012 to 15% in 2015F.

Forecasts and valuation

Year to 31 December	2011	2012	2013F	2014F	2015F
Revenue (HK$ m)	7,161	7,736	8,579	9,594	11,154
YoY (%)	12.7	8.0	10.9	11.8	16.3
Net profit (HK$ m)	3,007	3,414	3,586	3,753	4,413
YoY (%)	24.2	13.5	5.0	4.7	17.6
Diluted EPS (HK$)	0.481	0.546	0.572	0.593	0.693
YoY (%)	*24.1*	*13.5*	*4.8*	*3.6*	*17.0*
P/E (x)	14.6	12.9	12.8	12.3	10.5
P/B (x)	2.0	1.8	1.7	1.6	1.5
DPS (HK$)	0.18	0.20	0.23	0.24	0.26
Yield (%)	2.6	2.8	3.1	3.3	3.5
ROE (%)	11.8	12.2	12.9	13.6	14.6

Source: Company data, CCBIS estimates

Company Rating: Outperform
(initiation)

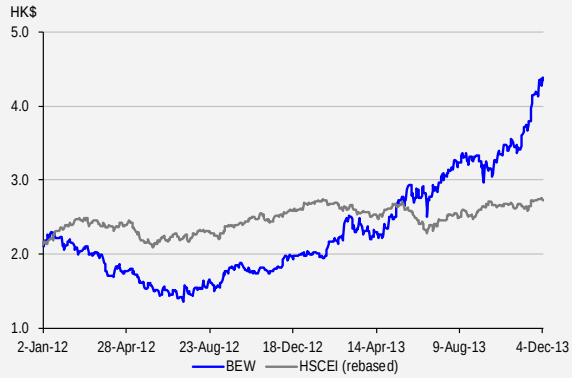
Price: HK$7.30
Target: HK$8.30
(initiation)

Trading data

52-week range	HK$5.92-7.79
Market capitalization (b)	HK$44.7b/US$5.8b
Shares outstanding (m)	6,362
Free float (%)	38
3M average daily T/O (m share)	8.8
3M average daily T/O (US$m)	7.6
Expected return – 1 year (%)	14

Price as at close on 3 December 2013

Stock price and HSCEI



Source: Bloomberg

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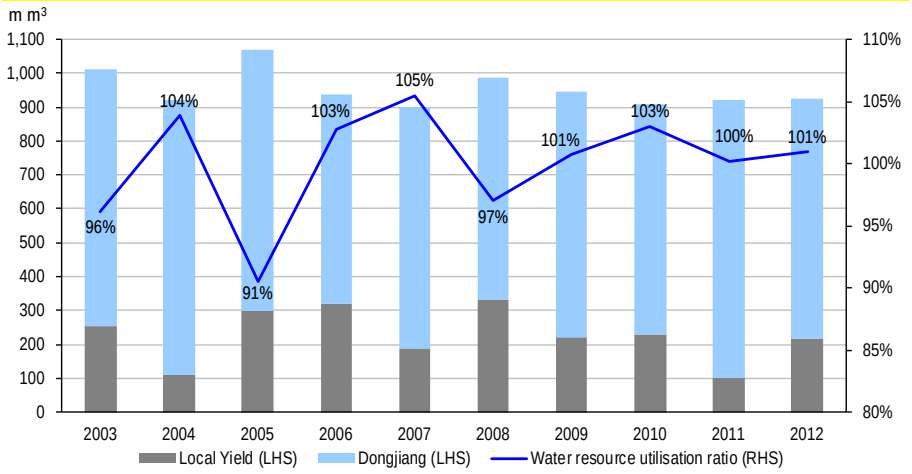
Defensive play with upside potential

Secure and steady water business growth

GDI generated about 60% of its total revenue from raw water supply in 2012. Thanks to its Dongshen Water Supply project, GDI has a 30-year concession right to draw up to 2.423b m^3 of Dongjiang water to service Hong Kong, Shenzhen and Dongguan. According to its current fixed revenue scheme, HK$3.54b, HK$3.74b and HK$3.96b will be paid to GDI for its water supply to Hong Kong in 2012-2014F, implying 5.8% water revenue growth per year. The 2012-2014F supply agreement with the Hong Kong government will come to an end in 2014F. We expect re-negotiation of the 2015-2017F agreement between the Guangdong and Hong Kong governments to commence early next year with the outcome being positive to GDI.

New tariffs under the 2015-2017F service agreement will be based on the increase in water supply operating/maintenance costs and renminbi appreciation. Considering the experience of the past 2 service terms where GDI has received satisfactory tariff hikes and given the heavy reliance of Hong Kong on Dongjiang water resources, we expect a reasonable 3-4% water tariff hike in 2015-2017F. The company's water supply revenue from Shenzhen and Dongguan will remain at around HK$1.6b-1.7b in 2015-2017F by our forecasts. We forecast a 4% water tariff hike for its Hong Kong new service agreement, which translates to HK$4.1b-4.4b in water revenue in 2015-2017F. This, together with the Shenzhen and Dongguan water supply projects, translates to 5% average net profit growth for GDI's water business in 2015-2017F.

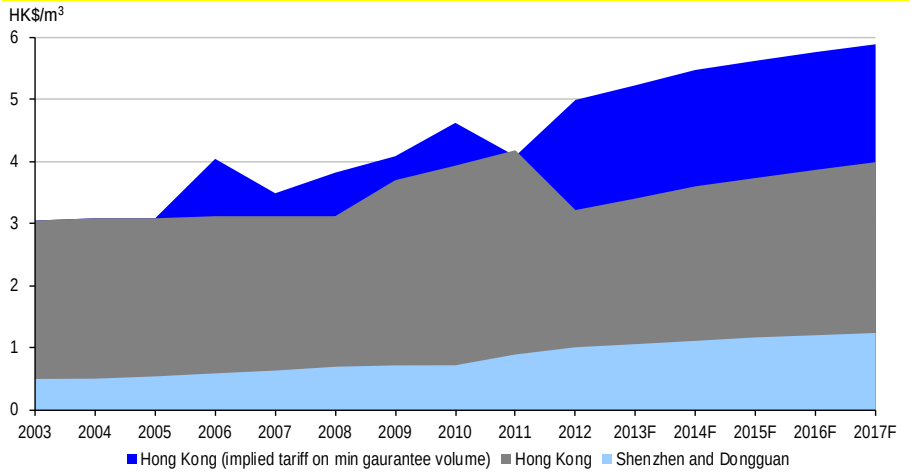
GDI – Hong Kong's water resources mix in 2003-2012



Note: Water resource utilization ratio = total water consumption/total water resources

Source: Company data, Water Supplies Department

GDI – implied water tariff for 2003-2017F



Source: Company data, CCBIS estimates

GDI's stable water business from Hong Kong and strong cash position give it the security to explore growth opportunities in water. The company indicated an 8% ROE requirement for all new water projects and will consider projects in both Guangdong and other provinces. In early 2012, GDI acquired a 49% stake in the Guangzhou Nansha Water Supply project, which has 72m m^3 in annual capacity. GDI's Nansha Huangge water plant was in operation and loss-making at the end of last year, mainly due to heavy interest expenses. With the water plant now undergoing debt restructuring, we expect it to incur a minimal loss in 2013F and a modest profit as early as 2014F. However, given the plant's relatively small size, we forecast earnings contribution to be c.1% for 2014-2017F.

GDI's acquisition of a single plant will bring it only marginal accretive value in our view. We expect the company to seek larger and more frequent purchases. By our calculation, an 8% ROE return with a 1/3 equity investment would lift earnings by 1.4% for every 1m tonnes of daily capacity acquired. We believe the stock deserves a re-rating should any scaled (i.e. over 3.0m tonnes of daily capacity) and value-accretive acquisition of a water plant take place.

GDI – value-accretion analysis of water plant acquisition

Assumptions			
Designed daily capacity (k tpd)			1,000
Capex per daily tonne (RMB)			1,500
Total capex (RMB m)			1,500
% to 2014F cash position			18
Effective stake (%)			100
Equity investment			33
Project ROE (%)	8	10	12
Project earnings (RMB m)	40.0	50.0	60.0
Project earnings (HK$ m)	50.8	63.5	76.2
GDI's 2014F earnings (HK$m)			3,754
Accretion to 2014F earnings (%)	1.4	1.7	2.0

Source: CCBIS estimates

Property business a secondary earnings driver

We expect the income stream from GDI's properties to be stable and highly visible in 2013-2015F, accounting on average approximately 13% of the company's revenue for the period. GDI's core operating assets, Teem Plaza (a complex entailing the Teemall, the Teem Tower, and the Sheraton Guangzhou Hotel) and the Guangdong Investment Tower, are located in Guangzhou and Hong Kong's key business areas and have a 98-99% occupancy rate. Despite increasing commercial land supply in Guangzhou over the next few years, we believe the Teemall and Teem Tower will generate resilient rental income given their long-established and superior location in the district. We forecast Teem Plaza and Guangdong Investment Tower to deliver 11% average operating profit growth in 2013-2015F, net of revaluation gains or losses.

In 2009 GDI acquired a piece of land in Tianjin to develop a commercial complex similar to the Guangzhou Teem Plaza. Total investment for the project will be RMB2.3b. As of 2012, the company had already invested HK$1.3b. We expect the residual amount to be invested in the next three-to-four years and construction to be completed in 2016F. Our model factors in a 4-5% contribution to GDI's total revenue starting from 2016F. The company is also developing an integrated commercial project in Panyu Wanbo's CBD, with total investment of RMB1.9b. Given the uncertainty surrounding the construction timetable, we have not yet factored in the impact of the Panyu Wanbo project in our earnings forecasts.

The incentive for GDI to chase M&A opportunities in property projects is strong. In late 2011, Guangdong Teem, a GDI's subsidiary, had planned to acquire 40% equity in three property projects from GDI's parent, Guangdong Holding (GDH). The transaction collapsed around the end of 2012 due to the government's regulatory control over China's property investments. Despite temporary regulatory constraints, GDI has let on that it will continue to seek property investment opportunities in Guangdong province, which means we may see additional purchases, especially from the parent company in the medium term.

GDI – commercial property assets under the parent company

Company	Project	Location	GFA (k sm)	Use	Status
GDH Real Estate (China)	Zhuguang Road project	Guangzhou	25	Commercial	Under construction
			97	Residential	
	Taikang Road project	Guangzhou	75	Commercial	Under construction
			17	Residential	
			31	Other	
	Guangzhou B1-1 lot	Guangzhou	235	Complex	Under construction
	Guangzhou Mingcheng Commercial Plaza	Guangzhou	111	Commercial	Under construction
Guangdong Sancheng Economic Development	Zhujiang New Town	Guangzhou	300	Commercial	Tentative acquisition abandoned
Guangzhou Jin Dong Yuan Real Estate Development	Canton Mall	Guangzhou	110	Commercial	Tentative acquisition abandoned
Guangzhou Tian Yuan Investment Management	Comic City	Guangzhou	30	Commercial	Tentative acquisition abandoned

Source: Company, CCBIS Research

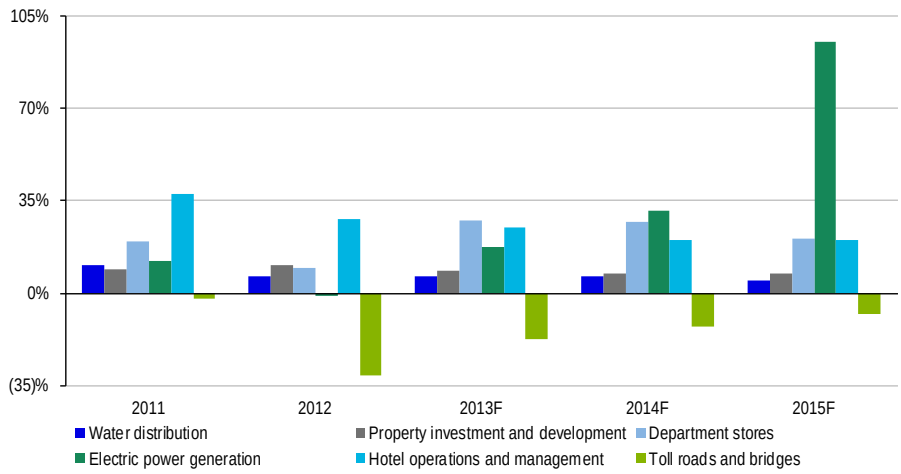
Co-developing other business lines

Department store operation, hotel management as well as power generation together accounted for 25% of total revenue in 2012. We forecast this ratio to rise to 37% in 2015F with most growth stem from department stores in the next two years. We expect to see a ramp up of visitor traffic from its Ao Ti, Baiyun New Town, and Dong Pu stores and see mixed results in its other department stores including Teemall, Ming Sheng, and Wan Bo stores with single digit or declining revenue growth in 2013-2015F.

The company also operated and managed 37 hotels in Mainland China, Hong Kong, and Macau. The 5-star Sheraton Guangzhou Hotel standalone itself remain as its core assets and contributed about 25% of the total hotel segment revenue in 2012. We expect Sheraton Guangzhou Hotel to maintain at more than 60% occupancy rate in 2013-2015F, and deliver 26% average operating profit growth for the period.

Apart from hotel operation, GDI owns 2 major coal-fired power plants in Guangdong province. The Zhongshan power plant is equipped with an installed capacity of 110MW while the Yudean Jianhai power plant commands a total of 3.2GW installed capacity. In end 2012, NDRC has approved the construction of a new gen set of 2 x 300MW in replacement of the old 110MW capacity in its Zhongshan power plant. We have factored in capex of about HK$950m for its facility replacement in Zhongshan plant and expect a net profit jump in 2015F assuming the full upgrade of the new capacities. However, we see power plant's earnings highly vulnerable to coal price changes, and hence would not be the most preferred asset hould GDI chase for M&A opportunities

GDI – revenue YoY growth by segment (2011-2015F)



Source: Company data, CCBIS estimates

Reshuffling no-core business mix a long-term positive

We consider the disposal of GDI's toll-road and power businesses a long-term positive at it forces a reshuffle of the asset mix towards projects that offer more promising returns over the medium term. Amid an environment of low growth and toll policy uncertainty, GDI made the decision in 2010 to dispose of its toll roads. In June 2013, it sold three toll bridges in Panuy, Humen, and Shantou Haiwan that had been held under its JCE and associate companies. For its efforts, GDI realized a HK$424m net disposal gain for 1H13. In September 2013, the company disposed of its coal-fired power plant in Shaoguan. The plant had been making a net loss since 2010. We believe the market is anticipating a near-term hike in the dividend payout given GDI's cash on hand coupled with the extra gain from the disposal of non-core business.

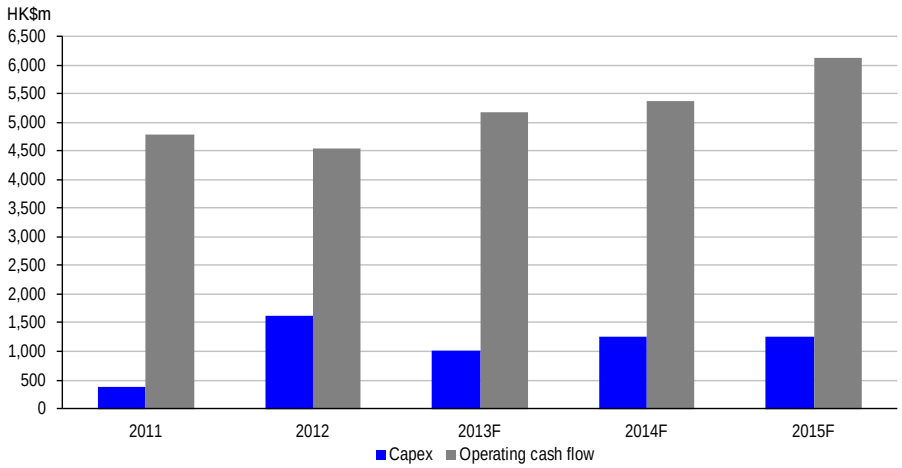
Apart from one-off cash proceeds, we expect GDI's strong and still increasing operating cash flow and a net cash position to fuel new investments, especially in the water and property sectors. We forecast capex of HK$1.0b-1.3b in 2013-2015F for GDI's existing projects, almost all of which will come from the company's own coffers. Over the next several years, we also expect GDI to continue to dispose of its slow growth non-core business.

GDI – disposal of non-core assets timeline

Date	Effective stake (%)	Core assets	Gain
28 Jun 2013	23.0	Humen Bridge	
28 Jun 2013	30.0	Shantou Haiwan Bridge	HK$424m
28 Jun 2013	20.0	Panyu Bridge	
27 Sep 2013	11.5	Guangdong Shaoguan Yue Jiang Power	Plant: RMB75m Capacity quota: RMB56m

Source: Company, CCBIS Research

GDI – capex vs. operating cash flow (2011-2015F)



Source: Company data, CCBIS estimates

Valuation

We initiate coverage on GDI with an Outperform rating and HK$8.30 target price. Our SOTP-derived target price implies 14% potential upside potential. We employed a DCF valuation matrix to assess its water and toll-road businesses, NAV analysis for its property investments, and P/B multiples for its power generation and hotel operations. We assumed a 7.0-7.5% cap rate for Teem Plaza and the Tianjin Teem Shopping Mall, 10x 2014F P/E for the company's department stores, and 1.0x 2014F P/B for its power generation and hotel operations, respectively. We have also applied a 15% discount for conglomerates to factor in cross-segment operational risks. Our target price implies 14x P/E and 1.8x P/B in our 2014F EPS and BVPS forecasts

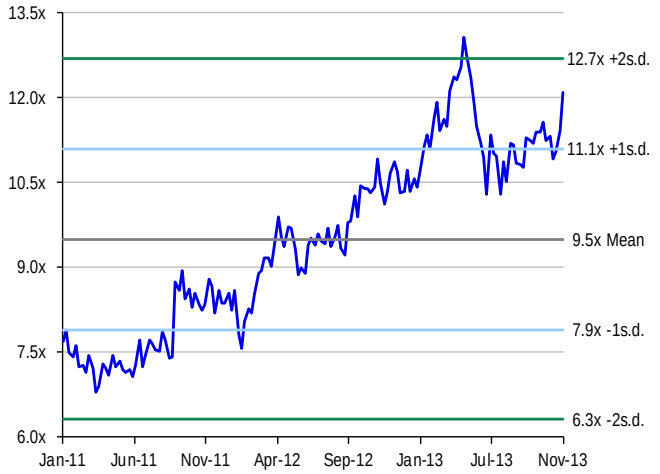
GDI – target price assumptions

Business	Valuation methodology	Equity value (HK$m)
Water distribution	DCF, 11.2% CoE, no terminal growth	33,455
Property investment	NAV, 7.0-7.5% cap rate	24,513
Department stores	10.0x 2014F P/E	2,997
Electric power generation	1.0x 2014F P/B	1,323
Hotel operation	1.0x 2014F P/B	2,601
Toll roads and bridges	DCF, 12.0% COE, no terminal growth	29
Total EV		64,919
Less: (net debt)/net cash		7,280
Less: minority interest		(10,084)
Total NAV		62,115
Outstanding shares		6,362
Target fair value (HK$/share)		9.76
NAV discount (%)		15
Target price (HK$/share)		8.3

Source: CCBIS esitmates

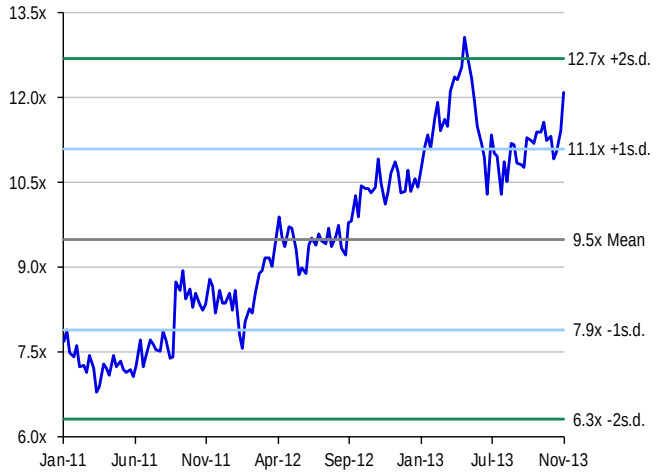
Our 2014F EPS and BVPS forecasts have GDI trading on 12x P/E and 1.6x P/B multiples, a premium to its 3-year historical average of 10x. However, as we have not factored in any revaluation gains from GDI's property assets or its potential M&A activities, we believe there is upside to our 2013-2015F EPS forecasts. We also believe the stock deserves to trade at a higher multiple on an improving ROE, from 12% in 2012 to 15% in 2015F.

GDI – 12-month rolling P/E bands



Source: Company data, CCBIS estimates

GDI – 12-month rolling P/B bands



Source: Company data, CCBIS estimates

Risks

We believe downside risks to our call may originate from (1) less-than-expected water tariff hikes in Hong Kong and Guangdong, (2) lower-than-expected occupancy rates for the company's properties, department store, and hotel operations, and (3) slower-than-expected development of GDI's new property and power projects.

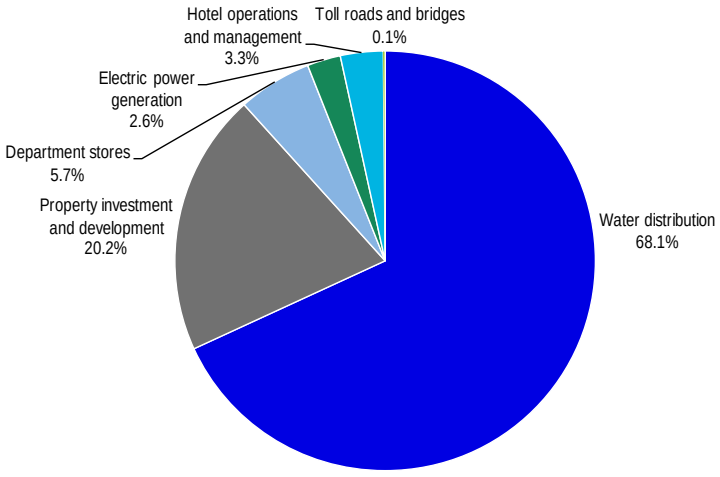
Catalysts

Share price catalysts include (1) sizeable profit-accretive acquisitions of water assets, (2) asset injections of property from the parentco, and (3) earlier-than-expected completion of the negotiations on water tariff hikes at GDI's Dongshen water supply project.

Business profile

GDI is a state-owned investment holding company that has amassed assets in water supply, property investment, department stores, hotels, power generation, and toll-road in China. In 2012, 88% of its operating profit stemmed from highly visible income streams, including water supply and property investment and development.

GDI – operating profit mix in 2012



Source: Company data, CCBIS estimates

GDI – key assumptions

Year ended 31 December	2011	2012	2013F	2014F	2015F
Water supply					
Dongshen water supply annual designed capacity (m m^3)	2,423	2,423	2,423	2,423	2,423
Utilization rate (%)	89.3	82.2	81.7	83.5	85.5
Sales volume (m m^3)	2,163	1,991	1,979	2,024	2,071
Actual implied water tariff – Hong Kong (HK$/$m^3$)	4.1	5.0	5.2	5.5	5.6
Min guarantee implied water tariff – Hong Kong (HK$/$m^3$)	4.2	3.2	3.4	3.6	3.7
Property development					
Teemall					
Occupancy rate (%)	*99.0*	*99.0*	*99.0*	*99.0*	*99.0*
Average monthly rental (HK$/$m^2$)	*684*	*741*	*808*	*873*	*942*
Teem Tower					
Occupancy rate (%)	*97.6*	*98.7*	*98.0*	*98.0*	*98.0*
Average monthly rental (HK$/$m^2$)	*169*	*190*	*204*	*217*	*230*
Sheraton Guangzhou Hotel					
Occupancy rate (%)	*44.1*	*63.8*	*65.0*	*65.0*	*65.0*
Average daily room rate (HK$/day)	*1,626*	*1,591*	*1,607*	*1,607*	*1,607*
Department store					
Annual rental income					
Teemall Store	*497*	*486*	*525*	*562*	*590*
Ming Sheng Store	*58*	*62*	*58*	*56*	*56*
Wan Bo Store	*79*	*92*	*91*	*90*	*89*
Ao Ti Store	*13*	*23*	*42*	*63*	*81*
Baiyun New Town Store	*2*	*14*	*56*	*113*	*169*
Dong Pu Store	*0.1*	*34*	*136*	*271*	*407*
Hotel operation and management					
Annual income	519	665	831	998	1,197
Number of hotels managed	43	37	37	37	37
Number of hotels owned/lease owned	7	7	7	7	7
Power generation					
Zhongshan Power Plant					
Designed capacity (MW/year)	*110*	*110*	*110*	*150*	*300*
Utilization rate (%)	*77.7*	*72.3*	*75.3*	*72.3*	*72.3*
On-grid tariff (HK$/kWh)	*0.70*	*0.75*	*0.73*	*0.76*	*0.78*
Guangdong Yudean Jinghai Power					
Designed capacity (MW/year)	*1,200*	*1,200*	*3,200*	*3,200*	*3,200*
Utilization rate (%)	*67.2*	*65.0*	*60.0*	*60.0*	*60.0*
On-grid tariff (HK$/kWh)	*0.52*	*0.55*	*0.54*	*0.54*	*0.54*
Toll roads and bridges					
Yingkeng Highway					
Average daily traffic (k vehicles)	*4.6*	*4.5*	*3.8*	*3.4*	*3.3*
Implied toll rate (HK$/vehicle)	*21*	*15*	*15*	*14*	*14*

Source: Company data, CCBIS estimates

GDI – income statement

Year ended 31 December (HK$m)	2011	2012	2013F	2014F	2015F
Revenue	7,161	7,736	8,579	9,594	11,154
Cost of sales	(2,534)	(2,649)	(2,938)	(3,286)	(3,820)
Gross profit	4,628	5,087	5,641	6,308	7,334
Other income/(losses), net	69	132	138	145	152
Selling and distribution costs	(150)	(170)	(172)	(192)	(223)
Administrative expenses	(841)	(1,061)	(1,030)	(1,151)	(1,339)
Other operating income/(expenses), net	(153)	(52)	(58)	(65)	(75)
Operating profit	3,553	3,936	4,578	5,110	5,925
Interest income	78	218	112	199	268
Interest expenses	(162)	(165)	(144)	(160)	(183)
Net interest expenses	(84)	54	(32)	39	85
Share of profit of JCE	83	82	51	–	–
Share of profit of associates	108	71	179	222	265
Exceptional items	762	780	424	–	–
Pretax profit	4,422	4,922	5,169	5,411	6,362
Tax	(937)	(954)	(1,002)	(1,049)	(1,233)
Profit for the year	3,485	3,968	4,168	4,363	5,129
Minority interests	(478)	(554)	(582)	(609)	(716)
Net profit attributable to shareholders	3,007	3,414	3,586	3,753	4,413
Core earnings	2,406	2,785	3,244	3,753	4,413
Revaluation gains (losses)	777	795	–	–	–
Basic EPS	0.482	0.548	0.572	0.593	0.693
Diluted EPS	0.481	0.546	0.572	0.593	0.693
Revenue growth (%)	12.7	8.0	10.9	11.8	16.3
Operating profit growth (%)	3.7	10.8	16.3	11.6	15.9
Net profit growth (%)	24.2	13.5	5.0	4.7	17.6
Gross margin (%)	64.6	65.8	65.8	65.8	65.8
Operating margin (%)	49.6	50.9	53.4	53.3	53.1
Net margin (%)	42.0	44.1	41.8	39.1	39.6
Core profit margin (%)	33.6	36.0	37.8	39.1	39.6

Source: Company data, CCBIS estimates

GDI – balance sheet

Year ended 31 December (HK$m)	2011	2012	2013F	2014F	2015F
Available-for-sale investments	0.03	432	432	432	432
Tax recoverable	–	0.1	0.1	0.1	0.1
Inventories	61	57	63	70	82
Receivables, prepayments and deposits	2,942	3,123	3,463	3,873	4,503
Derivative financial instruments	64	–	–	–	–
Cash and cash equivalents	3,543	4,472	7,975	10,723	14,056
Current assets	6,610	8,084	11,933	15,098	19,072
Property, plant, and equipment	3,294	3,100	3,827	4,739	5,580
Investment properties	7,107	9,460	9,660	9,860	10,060
Prepaid land lease payments	102	97	97	97	97
Goodwill	266	266	266	266	266
Interests in JV	807	720	–	–	–
Interest in associates	1,346	1,482	1,662	1,884	2,149
Intangible assets	14,933	14,124	13,338	12,595	11,894
Prepayments and deposits	343	–	–	–	–
Deferred tax assets	24	29	29	29	29
Non-current assets	28,221	29,278	28,878	29,469	30,075
Total assets	34,832	37,362	40,811	44,567	49,147
Payables and accruals	2,545	2,639	2,927	3,273	3,806
Tax payable	400	366	366	366	366
Derivative financial instruments	265	–	–	–	–
Due to MI of subsidiaries	318	316	316	316	316
Bank borrowings	2,484	238	419	637	855
Current liabilities	6,012	3,559	4,027	4,592	5,342
Bank borrowings	1,346	2,547	2,571	2,806	3,042
Deferred tax liabilities	1,602	1,672	1,672	1,672	1,672
Other	1,370	1,199	1,199	1,199	1,199
Non-current liabilities	4,318	5,419	5,442	5,678	5,913
Total liabilities	10,331	8,978	9,469	10,269	11,255
Issued capital	3,116	3,117	3,153	3,181	3,185
Reserves	17,849	20,110	22,262	24,476	27,256
Proposed final dividends	686	810	998	1,103	1,196
Shareholders' equity	21,651	24,038	26,413	28,760	31,638
Minority interests	2,849	4,346	4,928	5,538	6,254
Total equity	24,501	28,384	31,341	34,297	37,892

Source: Company data, CCBIS estimates

GDI - Cash flow statement

Year ended 31 December (HK$m)	2011	2012	2013F	2014F	2015F
Pretax profit	4,422	4,922	5,169	5,411	6,362
+ Depreciation	197	246	277	342	412
+ Amortization of other intangibles	818	809	787	743	701
- Change in working capital	(1,759)	(82)	(59)	(71)	(109)
- Change in working capital – other	(5)	(36)	–	–	–
+ Change in deferred tax liabilities	305	70	–	–	–
- Change in deferred tax assets	(1)	(5)	–	–	–
- Tax paid	(937)	(954)	(1,002)	(1,049)	(1,233)
Other	1,754	(420)	–	–	–
Net operating cash flow	4,794	4,550	5,172	5,377	6,134
Capex	(370)	(247)	(1,204)	(1,454)	(1,454)
Addition of intangible assets	111	(0)	–	–	–
Acquisition of equity interest	(206)	(50)	541	(222)	(265)
Other	(2,142)	(375)	–	–	–
Net investing cash flow	(2,608)	(672)	(663)	(1,676)	(1,719)
Net change of borrowing	(112)	(1,045)	204	454	454
Issue of ordinary shares	1	1	36	28	4
Dividends paid	(1,059)	(1,122)	(1,247)	(1,434)	(1,539)
Other	(171)	(304)	–	–	–
Net financing cash flow	(1,341)	(2,471)	(1,007)	(953)	(1,081)
Beginning cash balance	2,108	3,065	4,472	7,974	10,722
Changes in cash	845	1,407	3,502	2,748	3,333
Forex effect	112	(0.3)	–	–	–
Ending cash	3,065	4,472	7,974	10,722	14,056
Ending cash – BS	3,543	4,472	7,975	10,723	14,056
Less: Non-pledged time deposits with maturity >3 months and restricted cash	(478)	(1)	(1)	(1)	(1)
Adjusted ending cash – CFS	3,065	4,472	7,974	10,722	14,056

Source: Company data, CCBIS estimates

GDI – key financial ratios

Year ended 31 December	2011	2012	2013F	2014F	2015F
Diluted EPS (HK$)	0.481	0.546	0.572	0.593	0.693
EPS growth (%)	24.10	13.50	4.78	3.62	16.97
P/E (x)	15.2	13.4	12.8	12.3	10.5
DPS (HK$)	0.18	0.20	0.23	0.24	0.26
DPS growth (%)	20.0	11.1	14.4	6.2	5.6
Yield (%)	2.5	2.7	3.1	3.3	3.5
BVPS (HK$)	3.5	3.9	4.2	4.5	5.0
P/B (x)	2.1	1.9	1.7	1.6	1.5
EV (HK$m)	46,729	44,816	41,649	39,525	36,742
EBITDA (HK$m)	4,568	4,990	5,642	6,195	7,039
EV/EBITDA (x)	10.23	8.98	7.38	6.38	5.22
Net debt/(cash) (HK$m)	288	Net cash	Net cash	Net cash	Net cash
Net debt/equity (%)	1.3	Net cash	Net cash	Net cash	Net cash
Interest cover (x)	22.0	23.9	31.9	31.9	32.5
ROE (%)	11.8	12.2	12.9	13.6	14.6
ROA (%)	9.0	9.5	9.2	8.8	9.4

Source: Company data, CCBIS estimates

Beijing Enterprises Water (371 HK)

One of the big fish

- **Solid short-term growth profile but more challenges ahead.** We like Beijing Enterprises Water (BEW) as a major beneficiary of government policy and for its strong growth profile and continuous M&A activity. However, we are concerned about rising competition for future acquisitions, BEW's higher non-recurring revenue mix versus peers, and a slowdown in industry capacity growth after 2015F.

- **Aggressive M&A would boost earnings in 2013-2015F.** BEW has easily beaten its guidance of 2.0m tpd in new additions each year, securing 7.6m tpd in new water supply and WWT capacity YTD. The company acquired 5.8m tpd externally in China and overseas which should boost earnings in 2013-2015F. Despite BEW's aggressive expansion plans, we are concerned about higher acquisition costs as competition heats up.

- **Water renovation projects will support earnings in the medium term but earnings are one-off.** Since 2009 BEW has earned a total of RMB6.4b from water renovation and management services. This should rise further as China attempts to clean up its major water basins. We forecast BEW's renovation projects will underpin a 68% CAGR in built-transfer (BT) or BT-like construction revenue in 2013-2015F but such earnings are one-off in nature.

- **We initiate coverage with a Neutral rating and a HK$4.70 DCF-based target price,** which implies 10% potential upside. BEW is the most expensive stock in our covered universe trading at 24x 2014F P/E on a 26% EPS CAGR for 2013-2015F. Despite its nationwide exposure, strong political support and lower funding costs, we are wary of its potential earnings volatility and a possible slowdown in industry growth after 2015F.

Forecasts and valuation

Year ended 31 December	2011	2012	2013F	2014F	2015F
Revenue (HK$m)	2,654	3,727	7,584	10,053	10,891
YoY (%)	(58.2)	40.4	103.5	32.6	8.3
Net profit (HK$m)	601	750	1,123	1,524	1,829
YoY (%)	17.2	24.9	49.7	35.7	20.0
Diluted EPS (HK$)	0.089	0.109	0.133	0.181	0.217
YoY (%)	(6.0)	21.5	22.6	35.7	20.0
P/E (x)	47.8	39.3	32.1	23.6	19.7
P/B (x)	3.7	3.5	2.8	2.6	2.4
DPS (HK$)	0.03	0.04	0.05	0.07	0.08
Yield (%)	0.7	0.9	1.2	1.6	2.0
ROE (%)	10.0	9.1	10.5	11.3	12.5

Source: Company data, CCBIS estimates

Company Rating: Neutral
(initiation)

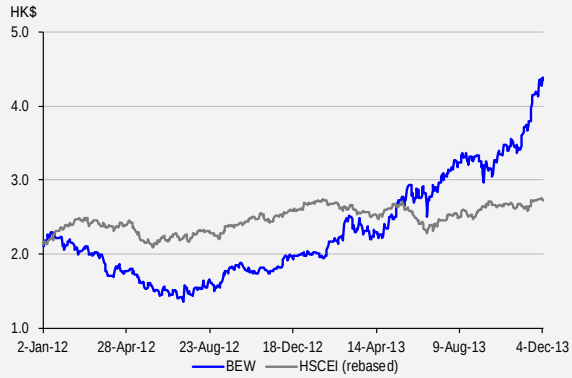
Price: HK$4.27
Target: HK$4.70
(initiation)

Trading data

52-week range	HK$1.90-4.46
Market capitalization (b)	HK$36.8/US$4.8b
Shares outstanding (m)	8,436
Free float (%)	34
3M average daily T/O (m share)	35
3M average daily T/O (US$m)	16.2
Expected return – 1 year (%)	10

Price as at close on 3 December 2013

Stock price and HSCEI



Source: Bloomberg

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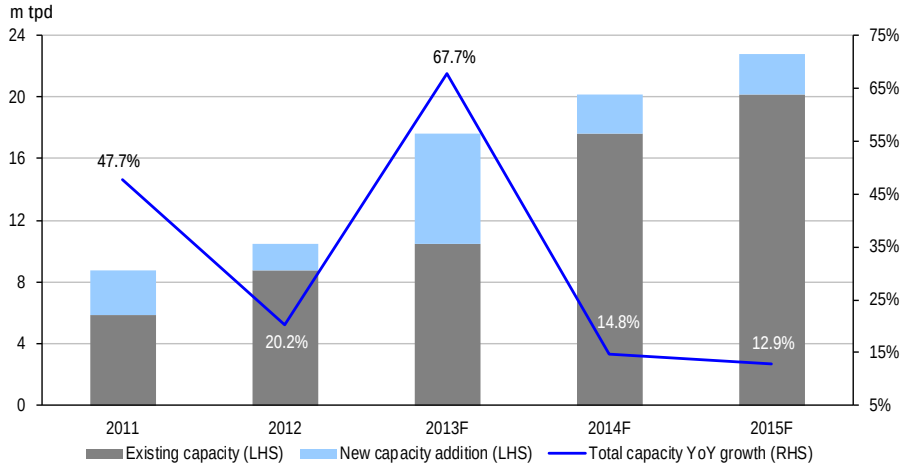
One of the big fish

Aggressive leader contending for market share

China's WWT industry is entering a period of rapid industry consolidation likely to persist for several years. BEW has flourished during this time, grabbing market share by piling up new project wins and aggressively pursuing external acquisitions. It expanded market share from about 2% in 2010 to about 5% in 2013F, in the process of adding 5.3m tpd in water treatment, water supply, and reclaimed water operating capacity. BEW has outperformed the market as of 1H13. It received an asset injection from its parent, Beijing Enterprises Holdings (392 HK, Outperform) at the end of 2012 and from February to September 2013 it made a series of acquisitions that added 5.8m tpd in water treatment and supply capacity to its portfolio (operating, preparatory, and under construction). Along with other new project wins, the company has just secured 7.6m tpd in water treatment and supply capacity in 2013F, easily beating management's guidance of 2.0m tpd new additions per year.

BEW – new capacity additions vs. total capacity growth (2011-2015F)



Source: Company data, CCBIS estimates

Taking into account its rapid capacity expansion, we forecast BEW's water supply and treatment services operational revenue to grow at 35% CAGR in 2013-2015F, and its water supply and treatment construction revenue to increase at a 17% CAGR. We believe the industry landscape will continue to favor BEW and other tier-one SOE players with low funding costs and strong political connections; however, we are wary of BEW's reliance on extrinsic growth which subjects the company to rising acquisition costs as bidding for quality water projects becomes more competitive. We expect to see more competition from BEH's water peers, direct investment funds and conglomerates.

BEW – timeline of major acquisitions YTD

Date	Target	Consideration	Designed daily capacity (k tpd)	Acquisition cost per daily tonne
6 Feb 2013	Dongguan 7 WWT	RMB504m	570	RMB884
21 Mar 2013	CGEP	€100m	59	€1,711
28 Jun 2013	BCEG Environment Development	RMB270m	563	RMB480
17 Jul 2013	36 water projects of Standard Water	RMB1,980m*	1,521	RMB1,302*
12 Sep 2013	Salcon Water	RMB955m	1,245	RMB767

Note: Capacity figures include non-operating portion

** Subject to change in total debt undertaking amount*

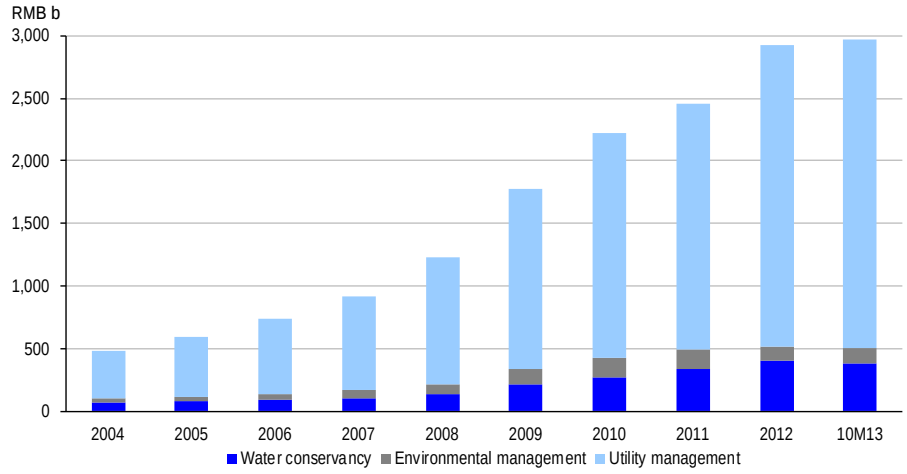
Source: Company data, CCBIS Research

BEW has acquired two overseas projects since 2011, namely an EPC+O project in Malaysia Pantai with a RMB1.9b investment and TOT projects in Portugal with an RMB829m (EUR100m) investment. In our view, these projects are BEW's way of testing the water before it makes further and likely larger overseas purchases. Yet the company does not have a pressing need to enter the overseas market given that it is still amassing projects in China where it enjoys political influence and local partnerships.

Potential growth from water environment renovation projects

More than half of China's water resources are below Standard III (versus Standard II for drinking water). It is almost inevitable that the government will try to improve this situation. When it does, we believe established SOE players such as BEW will be well placed to take on the work orders that such an initiative will entail. Water renovation and remediation will be a huge undertaking across many years. BEW kicked off its first environmental water renovation project in Kunming Tien Lake in 2009. To date, the Kunming project has raked in RMB6.4b. The total contract price of the project represents c.41% of its total BT/BT-alike project announced. Despite BEW's solid growth potential, we believe most of its new projects will be on a BT-basis, meaning a non-recurring income stream.

China's FAI in water conservancy, environment and utility management



Source: NBSC

BEW – Environmental water renovation project list

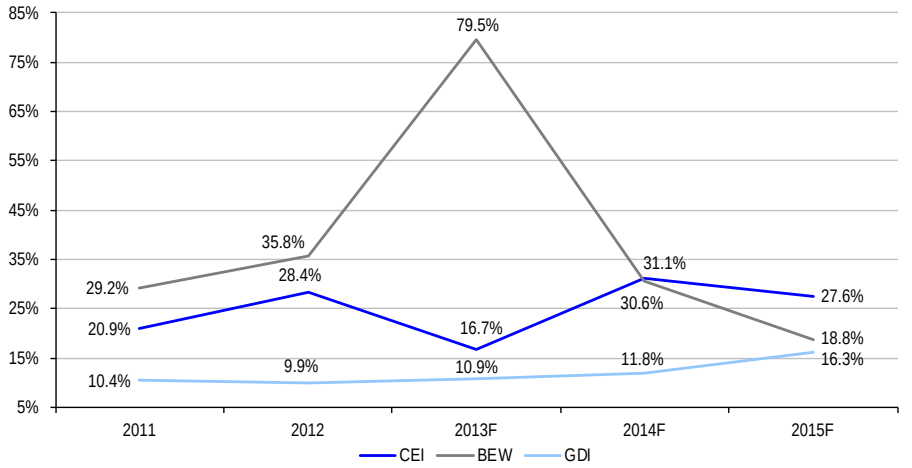
Project	Location	Focus	Type	Investment (RMB m)	Status
Kunming Tien Lake	Yunnan	Construction of canal, sewage treatment plant and other supporting facilities	BT	1,620	Completed
Entry to Kunming Tien Lake – Laoyunliang River	Yunnan	Construction of sewage canal and water environment management project	BT	110	Completed
Entry to Kunming Tien Lake – Xiba River	Yunnan	Construction of sewage canal and water environment management project	BT	98	Completed
Entry to Kunming Tien Lake – Yudai River	Yunnan	Construction of sewage canal and water environment management project	BT	101	Completed
Dalian Lushun Beida River Ecological management	Liaoning	River renovation project	BT	1,500	In preparation
Nanminghe water environment renovation	Guizhou	Channel clean-out, sewage channel transformation and deodorization	BT	442	Under construction
Pi County Tuojianghe environmental renovation	Chengdu	River renovation	BT	1,500	Under construction
Jinzhou Economic Development Zone infrastructure auxiliary	Dalian	Reclamation and river bank protection	BT	628	In preparation
Nanminghe environmental renovation	Guizhou	Environmental renovation	BT	360	Under construction
Total				6,359	

Source: Company, CCBIS Research

Higher earnings growth but lower earnings quality

In light of the growing contribution from new WWT and environmental renovation projects, we forecast BEW will deliver a strong gross profit CAGR of 46% in 2013-2015F, the highest in our covered universe. However, given 30-32% of BEW's 2013-2015F gross profit stems from BT and BOT construction revenue, the highest portion of construction revenue of its peers, we see BEW at risk of earnings volatility in view of the actual construction schedule of its long list of projects. On a recurring gross profit basis, we expect BEW's growth to slow from 36% YoY in 2012 to 19% YoY in 2015F.

BEW – recurring gross profit growth



Source: Compnay data, CCBIS estimates

Earning sensitivity analysis

Our sensitivity analysis indicates BEW's 2014F earnings are most sensitive to utilization changes in its existing water supply and WWT plants. Given WWT business is projected to account for c.29% of BEW's total revenue in 2014F, a 5ppt increase in utilization would lift our earnings forecasts by 5%. We also note a strong correlation between earnings and changes in WWT new capacity additions and tipping fees at BEW: for every 500k tpd and 5% increase in new operating WWT capacity and WWT tipping fees, earnings would rise 4% and 3%, respectively.

BEW will be 129% geared and will command 3.2x interest coverage based on our 2014F forecasts. We also note a 2% impact to earnings for every 25bp change in our interest rate assumption.

BEW – earnings sensitivity analysis

Earnings sensitivity	Change (%)	2014F earnings
WWT		
WWT operating capacity addition	+/- 500k tpd	+/- 3.9%
WWT tipping fees	+/- 5%	+/- 3.4%
Utilization rate	+/- 5ppt	+/- 4.6%
Interest rate	+/- 25bp	-/+ 2.4%

Source: CCBIS estimates

Valuation

We initiate on BEW with a Neutral rating. Due to the lumpiness of its earnings during different construction phases and because of the special accounting treatment effect of BOT/BT projects, we consider DCF an appropriate valuation methodology for the stock. Our HK$4.70 target price on BEW was arrived at by assuming a 7.8% WACC, a 2% terminal growth rate, and RMB3.3b in new project investment in 2015-2017F. Our target price suggests 10% potential upside.

BEW – DCF valuation matrix

DCF (HK$m)	
Risk free interest	4.0%
Risk premium	8.0%
Beta	0.8
Cost of equity	10.4%
Cost of debt	5.0%
Equity ratio	60%
Debt ratio	40%
Effective tax rate	21%
WACC	7.8%
Terminal growth rate	2.0%
Discount FCF per share (2015-2020F)	2.92
Terminal value per share (after 2020F)	4.23
Total discounted FCF per share (firm value)	7.15
Less: net debt per share (end 2014F)	2.14
Less: minority interest per share (end 2014F)	0.32
Total discounted FCF per share (equity value)	4.70

Source: CCBIS estimates

BEW is trading at 24x P/E in our 2014F EPS forecast, the higher bound of the company's historical average multiple. It is the most expensive stock compared with peers. Although we believe a national player such as BEW deserves a premium to private regional players given its better access to large-scale projects and higher EPS growth, the earnings volatility risk the company is subject to gives us pause, especially considering (1) the heavier mix of non-recurring construction revenue BEW will see in the next two years, (2) slower industry capacity growth and (3) BEW's relatively geared balance sheet compared with peers.

BEW – 12-month rolling P/E bands

Source: Company data, CCBIS estimates

BEW – 12-month rolling P/B bands

Source: Company data, CCBIS estimates

Risks

Upside risks to our view may originate from (1) further large-scale WWT acquisitions, (2) tipping fee hikes, and (3) more environmental renovation project wins. Downside risks include (1) slower-than-expected construction/capacity release timetable and (2) higher interest costs.

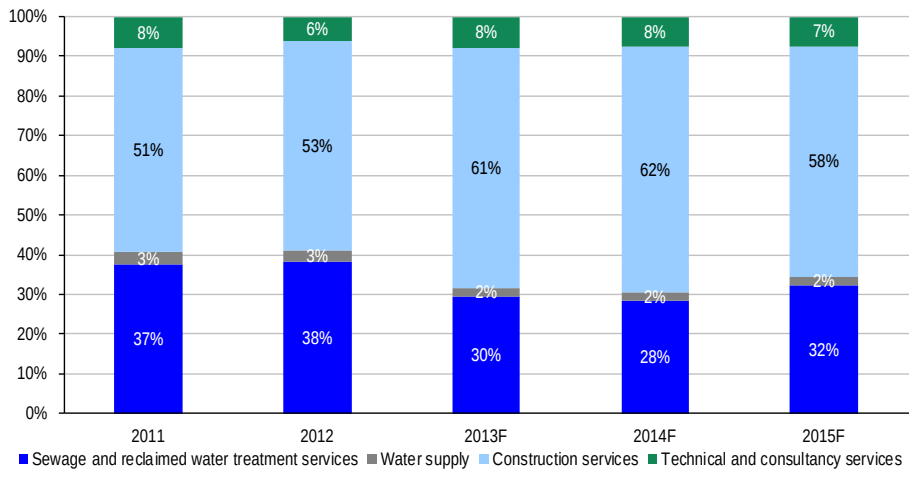
Catalysts

Near-term share price catalysts are (1) further large-scale project acquisitions at reasonable costs, (2) supportive government policies, and (3) faster-than-expected overseas expansion.

Business summary

BEW is a state-owned enterprise principally engaged in the construction and operation of waste water treatment, water supply, reclaimed water, and desalination plants in China. By the end of 1H13, the company commanded 8.1m m^3 of operating and 4.5m m^3 in preparatory water facilities over 21 provinces. BEW is the water services and environmental protection arm of BEH.

BEW – revenue mix by segment (2011-2015F)



Source: Company data, CCBIS estimates

BEW – key assumptions

Year ended 31 December	2011	2012	2013F	2014F	2015F
Operating capacity (k tonnes/day)					
Sewage treatment	3,774	4,777	7,277	8,777	10,277
Water supply	1,125	2,130	3,130	3,930	4,730
Reclaimed water	182	387	387	387	392
Desalination	0	0	0	0	0
Total	5,081	7,294	10,794	13,094	15,399
YoY growth (%)	77.4	43.6	48.0	21.3	17.6
Blended utilization (%)	61.7	61.3	62.8	63.0	63.1
Water tariff (RMB/tonne)					
Sewage treatment	0.83	0.90	0.91	0.93	0.95
Water supply	0.43	0.25	0.26	0.26	0.26
Reclaimed water	N/A	N/A	2.00	2.00	2.00
Desalination	N/A	N/A	5.99	5.99	5.99
Blended average	0.77	0.76	0.78	0.82	0.85
YoY growth (%)	(16.5)	(1.4)	2.5	5.0	4.0

Source: Company data, CCBIS estimates

BEW – consolidated income statement

Year ended 31 December (HK$m)	2011	2012	2013F	2014F	2015F
Revenue	2,654	3,727	7,584	10,053	10,891
Cost of sales	(1,746)	(2,290)	(4,698)	(6,157)	(6,378)
Gross profit	908	1,437	2,886	3,896	4,513
Other income and gains	530	661	327	356	285
Selling and distribution costs	(301)	(440)	(891)	(1,177)	(1,271)
Administrative expenses	16	(127)	(30)	(57)	(36)
Other operating expenses	1,153	1,531	2,291	3,017	3,490
Operating profit					
	(313)	(494)	(771)	(951)	(993)
Finance costs	21	56	114	151	164
Share of results of JVs	–	(1)	1	1	1
Share of results of associates	861	1,092	1,634	2,218	2,660
Pretax profit					
	(170)	(225)	(336)	(456)	(547)
Income tax	691	867	1,298	1,761	2,113
Net profit					
	(90)	(117)	(175)	(237)	(284)
Minority interests	601	750	1,123	1,524	1,829
Net profit to shareholders					
	0.089	0.109	0.133	0.181	0.217
Diluted EPS					
	(58.2)	40.4	103.5	32.6	8.3
Revenue growth (%)	24.1	32.8	49.6	31.7	15.7
Operating profit growth (%)	17.2	24.9	49.7	35.7	20.0
Net profit growth (%)					
	34.2	38.6	38.1	38.8	41.4
Gross margin (%)	43.4	41.1	30.2	30.0	32.0
Operating margin (%)	22.6	20.1	14.8	15.2	16.8
Net margin (%)	2,654	3,727	7,584	10,053	10,891

Source: Company data, CCBIS estimates

BEW – consolidated balance sheet

Year ended 31 December (HK$m)	2011	2012	2013F	2014F	2015F
Land held for sale	1,000	1,077	1,077	1,077	1,077
Inventories	13	30	45	59	61
Amounts due from contract customers	88	32	57	85	111
Receivables under service concession	253	382	919	951	618
Trade receivables	3,677	2,386	5,730	5,934	3,857
Prepayments and other receivables	4,584	5,396	8,094	8,499	9,349
Restricted cash and pledged deposits	92	85	85	85	85
Cash and cash equivalents	1,948	4,291	6,474	3,013	2,306
Current assets	11,654	13,679	22,481	19,704	17,465
Property, plant and equipment	233	528	553	577	600
Goodwill	1,644	1,762	1,762	1,762	1,762
Operating concessions	763	973	985	997	1,008
Other intangible assets	6	17	16	15	13
Interests in JV	1,973	2,318	2,432	2,583	2,746
Interests in associates	37	101	102	103	104
AFS investment	3	7	7	7	7
Amounts due from contract customers	1,599	2,762	5,248	7,872	10,233
Receivables under service concession	5,003	6,469	10,140	15,402	21,114
Trade receivables	262	97	175	193	212
Prepayments and other receivables	1,542	2,547	2,802	2,942	3,089
Deferred tax assets	29	29	29	29	29
Non-current assets	13,095	17,611	24,251	32,480	40,918
Total assets	24,750	31,290	46,732	52,184	58,382
Trade payables	2,049	1,919	3,990	5,229	5,766
Other payables and accruals	3,406	4,269	5,550	7,770	10,101
Income tax payable	146	253	253	253	253
Bank and other borrowings	1,070	2,810	3,323	3,865	4,351
Finance lease payable	–	7	7	7	7
Current liabilities	6,671	9,258	13,122	17,123	20,478
Bank and other borrowings	5,365	6,593	7,789	9,054	10,188
Corporate bonds	2,326	2,395	5,495	4,203	4,203
Note payable	–	1,477	4,017	4,017	4,017
Other payables and accruals	280	233	350	490	637
Finance lease payable	–	13	13	13	13
Provision for major overhauls	167	222	222	222	222
Deferred income	25	81	81	81	81
Deferred tax liabilities	205	287	287	287	287
Non-current liabilities	8,368	11,300	18,252	18,365	19,646
Total liabilities	15,039	20,558	31,374	35,488	40,124
Share capital	691	691	844	927	1,021
Reserves	7,391	7,776	12,075	13,093	14,277
Shareholders' equity	8,082	8,467	12,919	14,020	15,298
Minority interest	1,629	2,264	2,439	2,676	2,960
Total equity	9,711	10,731	15,358	16,696	18,258

Source: Company data, CCBIS estimates

BEW – cash flow statement

Year ended 31 December (HK$m)	2011	2012	2013F	2014F	2015F
Pretax profit	861	1,092	1,634	2,218	2,660
+ Depreciation	9	25	25	26	27
+ Amortization	38	45	52	52	53
- Change in working capital	(68)	1,235	(3,268)	2,776	4,401
+ Change in deferred tax liabilities	66	82	–	–	–
- Change in deferred tax assets	3	0.2	–	–	–
- Tax paid	(170)	(225)	(336)	(456)	(547)
Other	(2,938)	(3,027)	(6,437)	(7,967)	(8,157)
Net operating cash flow	(2,198)	(773)	(8,330)	(3,351)	(1,563)
Capex	(191)	(38)	(50)	(50)	(50)
Addition of intangible assets	(2)	(8)	–	–	–
Acquisition of equity interest	(1,892)	(408)	(115)	(152)	(165)
Other	589	(105)	1	1	1
Net investing cash flow	(1,496)	(560)	(164)	(201)	(214)
Net change of borrowing	(2,093)	2,969	1,708	1,807	1,621
Issue of ordinary shares	234	–	153	84	93
Dividends paid	–	(345)	(358)	(507)	(644)
Issue of corporate bonds/CBs/notes	2,326	1,545	5,640	(1,292)	–
Other	3,109	(1,201)	3,534	–	–
Net financing cash flow	3,576	2,969	10,676	91	1,070
Beginning cash balance	1,962	1,923	4,291	6,474	3,013
Changes in cash	(118)	1,636	2,183	(3,461)	(707)
Forex effect	79	81	–	–	–
Ending cash	1,923	3,640	6,474	3,013	2,306
Ending cash – BS	1,948	4,291	6,474	3,013	2,306
Less: Time deposits and restricted deposits	(24)	(651)	–	–	–
Adjusted ending cash – CFS	1,923	3,640	6,474	3,013	2,306

Source: Company data, CCBIS etimates

BEW – key financial ratios

Year ended 31 December	2011	2012	2013F	2014F	2015F
Diluted EPS (HK$)	0.089	0.109	0.133	0.181	0.217
EPS growth (%)	(6.0)	21.5	22.6	35.7	20.0
P/E (x)	47.8	39.3	32.1	23.6	19.7
DPS (HK$)	0.03	0.04	0.05	0.07	0.08
DPS growth (%)	–	39.7	49.7	35.7	20.0
Yield (%)	0.7	0.9	1.2	1.6	2.0
BVPS (HK$)	1.17	1.23	1.53	1.66	1.81
P/B (x)	3.7	3.5	2.8	2.6	2.4
EV (HK$m)	38,262	42,777	56,644	57,159	58,780
EBITDA (HK$m)	1,201	1,601	2,368	3,096	3,570
EV/EBITDA (x)	31.9	26.7	23.9	18.5	16.5
Net debt/(cash) (HK$m)	6,720	8,899	14,064	18,039	20,367
Net debt/equity (%)	83	105	109	129	133
Interest cover (x)	3.7	3.1	3.0	3.2	3.5
ROE (%)	0.089	0.109	0.133	0.181	0.217
ROA (%)	(6.0)	21.5	22.6	35.7	20.0

Source: Company data, CCBIS estimates

Rating definitions

Outperform (O) – expected return > 10% over the next twelve months

Neutral (N) – expected return between -10% and 10% over the next twelve months

Underperform (U) – expected return < -10% over the next twelve months

Analyst certification:

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