China Everbright Water Limited

Trash to Treasure

SINGAPORE | UTILITIES | INITIATION

- Waste water treatment (WWT) capacity expansion and the ongoing hike of water tariff are expected to improve the company performance.
- War chest funds are supportive of growth initiatives.
- Sponge City Project offers the group opportunities to gain experience in the industrial chain integration.
- We initiate coverage on China Everbright Water Limited (CEWL) with **Accumulate** rating and **S$0.73 TP** based on 19.3x P/E, which implies an upside of **14.4%**.

Investment Thesis

China is still facing water shortage amid increasing demand for water. China's insufficient water resources and massive water demand pressurise the availability of water supply. Thus, water recycling is the most efficient way to solve the problem, and the WWT is poised to tap into the widening supply-demand gap.

The upswing of urban waste water discharge drives the strong demand for related treatments. Household waste water discharge volume dominated the total waste water discharge volume, and the number of urban WWT plants increased exponentially from 2005 to 2014 with CAGR of 14.7% of designed capacity. As urbanisation continues to increase, will result in higher demand for WWT.

Impetus to improve WWT quality standards, as pollutants in discharge water remain high. On average, the quality of WWT discharge is significantly below the stipulated national standards. Thus, prompting the Chinese government to take action in improving the quality of water discharge. (Potential higher water tariff, following the improved quality, could lift its top line, while enhanced efficiency and productivity could bring higher margin.)

Favourable policies and regulations promote further development of WWT. The 13th Five-year Plan guides the continuity of investment in WWT. The Water Pollution Prevention and Control Plan guides that the sector needs to be regulated and improved. In conjunction, the central government and WWT operators are expected to further collaborate efforts to spur the quality of WWT.

Investment Actions

CEWL is riding on the tailwind of beneficial WWT market conditions as well as the support of government policies. We initiate on CEWL with an "**Accumulate"** rating and **SG$0.73 TP** based on **19.3x P/E**, which implies an upside of **14.4%**.

09 May 2016

Accumulate (Initiation)

CLOSING PRICE	SGD 0.640
FORECAST DIV	SGD 0.004
TARGET PRICE	SGD 0.730
TOTAL RETURN	14.6%

COMPANY DATA

O/S SHARES (MN) :	883
MARKET CAP (USD mn / SGD mn) :	619 / 892
52 - WK HI/LO (SGD) :	1.1 / 0.97
3M Average Daily T/O (mn) :	1.16

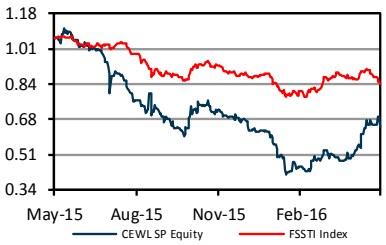
MAJOR SHAREHOLDERS (%)

CHINA EVERBRIGHT WATER HLDS LTD	74.6%
HUEI ALAN WANG YU	3.1%
DALVEY ASSET HOLDING LTD	2.7%
DAWEI CHEN	1.9%
INTERNATIONAL FINANCE CORP	1.9%

PRICE PERFORMANCE (%)

	1MTH	3MTH	1YR
COMPANY	0.0	(2.9)	8.1
STI RETURN	(4.6)	(9.2)	(16.5)

PRICE VS. STI



Source: Bloomberg, PSR

KEY FINANCIALS

Y/E Dec, HK$ mn	FY15	FY16e	FY17e	FY18e
Revenue	1,815	2,536	3,326	4,149
Gross profit	824	1,176	1,491	1,843
Net profit	424	561	723	882
P/E (x)	20.7	16.9	13.1	10.7
P/B (x)	1.2	1.3	1.2	1.1
EV/EBITDA	15.0	12.7	11.1	9.7
Dividend (SG Cents)	0.4	0.4	0.6	0.7
Dividend Yield, %	0.6%	0.6%	0.6%	0.6%

Source: Company Data, PSR est.

VALUATION METHOD

P/E Multiple

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MCI (P) 118/10/2015
Ref. No.: SG2016_0102

Company Background

- CEWL is engaged in integrated environmental water services, namely, waste water treatment, reusable water, waste water source heat pump, sludge treatment, research and development of environmental water technologies, and engineering and construction.

- CEWL's geographic coverage is mainly concentrated in the highly populated regions of China such as Beijing, Shandong, Jiangsu, Shaanxi, Henan, Liaoning, and Inner Mongolia.

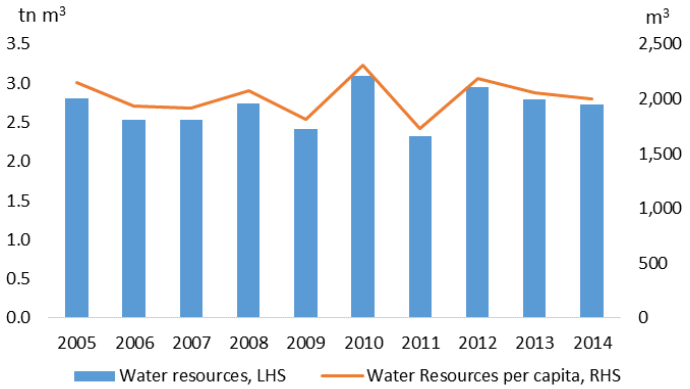
- As of Dec 2015, CEWL operates 48 WWT projects, 4 reusable water project, and 2 waste water source heat pump projects. The group's daily designed WWT capacity reached 4.6mn m^3 with the approximate utilisation rate of 87%.

- By the end of 2014, the parent company, China Everbright International Limited spun off the environmental water business and injected it into HanKore Environment Tech Group Limited via a reverse takeover arrangement. Since then, HanKore was renamed as China Everbright Water. By the end of 2015, CEWL completed theacquisition of Dalian Dongda Water Co., Ltd.

Investment Thesis

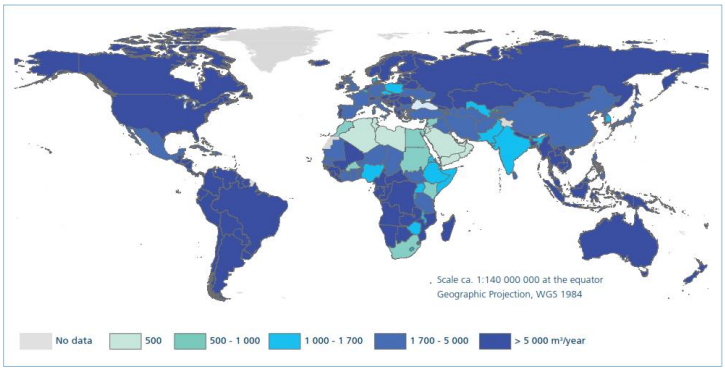
China is still facing water shortage amid the increasing demand for water. Referring to Figure 1, the annual water resources that include ground and surface water fluctuated within the range from 2.4tn m^3 to 3tn m^3 from 2005 to 2014, and the volatility is due to climate changes. Based on the amount, in terms of water resources, China ranks the 5th place worldwide, following Brazil, Russia, US, and Canada. However, the abundance of water pales when measured against the per capita level. The average water resources per capita in China is 2,017 m^3 per annum, which is only one-third of the world's average amount. Referring to Figure 2, China, being a rapidly developing country, is pressured for water sustenance, which is a significant obstacle that hinders economic growth.

Figure 1. Water resources and per capita in China



Source: Ministry of Water Resources of the PRC, PSR

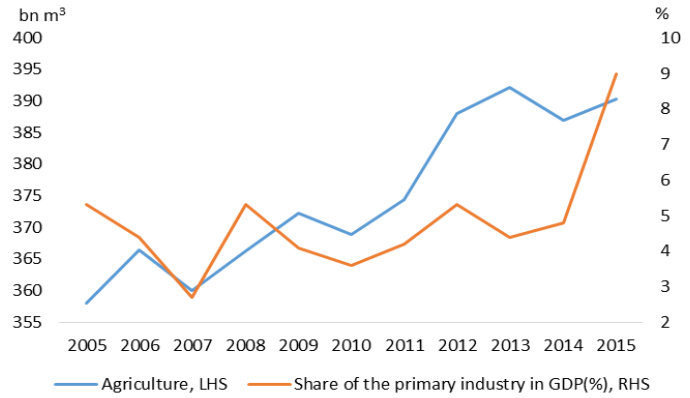
Figure 2. Total renewable water resources (m^3 per capita/year) in 2014



Source: Food and Agriculture Organization of the United Nations, PSR

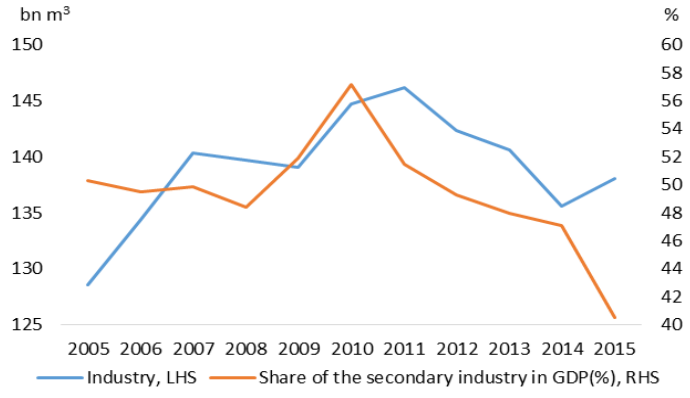
Referring to Figure 3 to 6, the water consumption breakdown by channels, unveils the fact that the use of agricultural and consumption water has been trending up. Meanwhile, the industry water consumption peaked in 2011 and trended down afterwards until 2014, before seeing a rebound in 2015. The change is mainly due to three reasons. Firstly, the advanced water conservation technology is increasingly applied to production activities. Secondly, the improvement of environmental protection regulation and the hike of water tariff, as well as the avocation of frugality from the central government in recently, burdened those enterprises that used to squander water. Lastly, the upgrade and transformation of industrial structure relieved the reliance on manufacturing, which is the secondary industry of the nation. In addition, the ongoing urbanisation boosted the migration to cities. Therefore, the overall water consumption maintained the upward trend for the past decade though it has dropped slightly in recent years, referring to Figure 7.

Figure 3. Use of agriculture water and the agriculture sector share in GDP



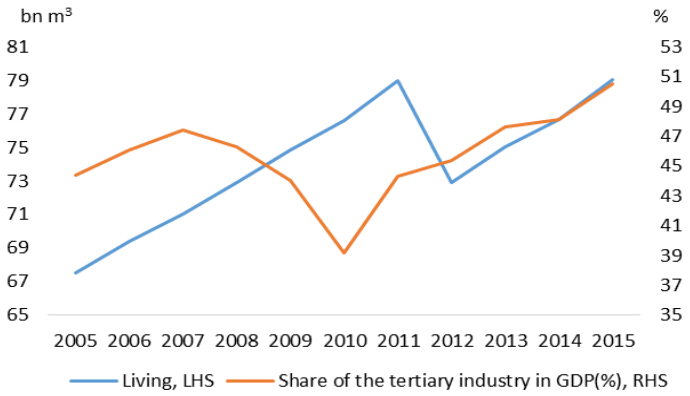
Source: Ministry of Water Resources of the PRC, National Bureau of Statistics, PSR

Figure 4. Use of industry water consumption and the industry sector share in GDP



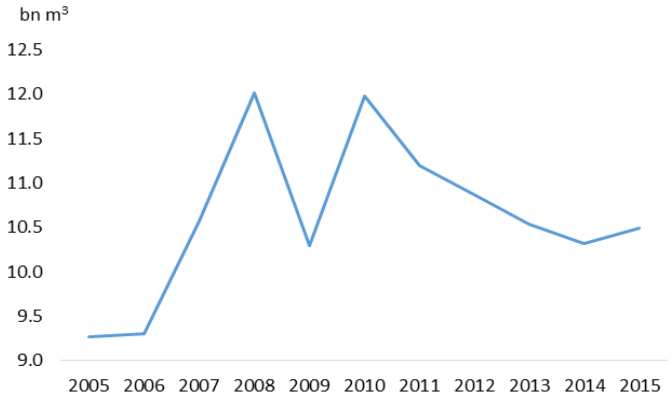
Source: Ministry of Water Resources of the PRC, National Bureau of Statistics, PSR

Figure 5. Use of consumption water and the consumption and service sector share in GDP



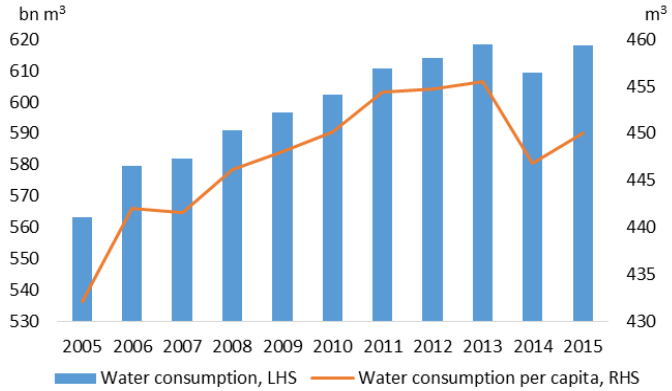
Source: Ministry of Water Resources of the PRC, National Bureau of Statistics, PSR

Figure 6. Use of ecological protection water



Source: Ministry of Water Resources of the PRC, PSR

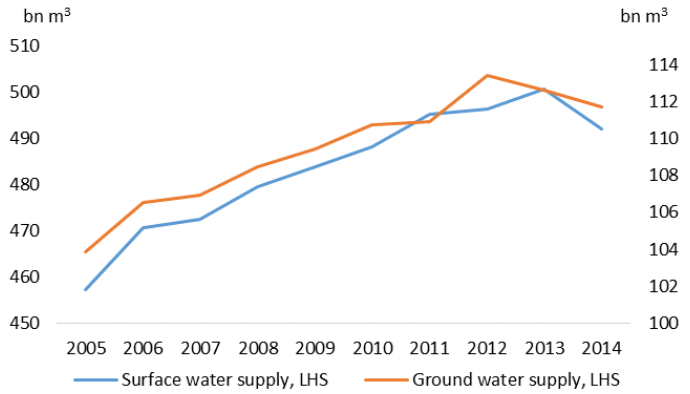
Figure 7. Total water consumption and per capita



Source: Ministry of Water Resources of the PRC, PSR

There are three water supply sources, namely surface water, ground water, and other water. Since the amount of other water supply is trivial, we shall only focus on the former two main sources of water, referring to Figure 8. Surface water supply is the main source of water, and the upward trend of these two supply sources aligned with the increasing demand for water consumption.

Figure 8. Surface and ground water supply

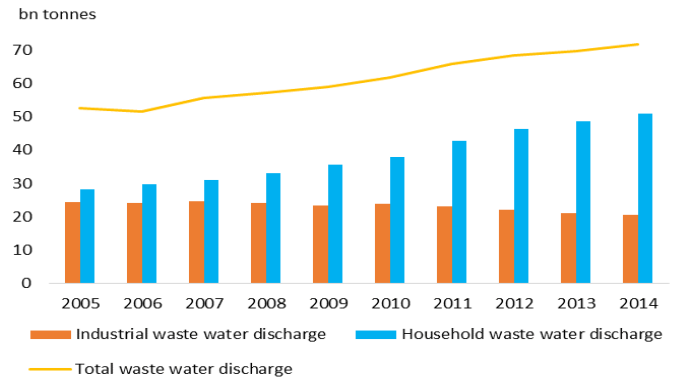


Source: Ministry of Water Resources of the PRC, PSR

To sum up, China's insufficient water resources and massive water demand puts pressure on the water supply. Water recycling remains to be the most efficient way to alleviate the problem of insufficient water resources, and as a result, the situation favours the development of WWT.

The upswing of urban waste water discharge drives the strong demand for related treatments. As previously discussed, the ascending level of water consumption results in the corresponding increase of waste water discharge, referring to Figure 9. The spread of discharge volume between two types of waste water was widening, and hitting record high at 2014 where the discharge volume of household waste water rose at a compound average growth rate (CAGR) of 6.8%, to a 10-year high of 51bn tonnes, whilst the industrial waste water discharge volume dropped to a 10-year low to 20.5bn tonnes.

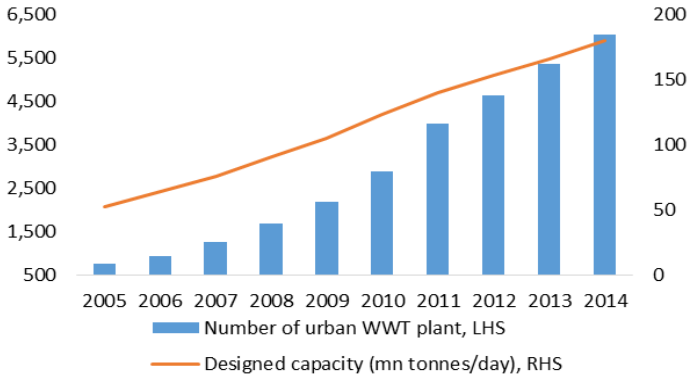
Figure 9. Waste water discharge volume breakdown



Source: Ministry of Environmental Protection of the PRC, PSR

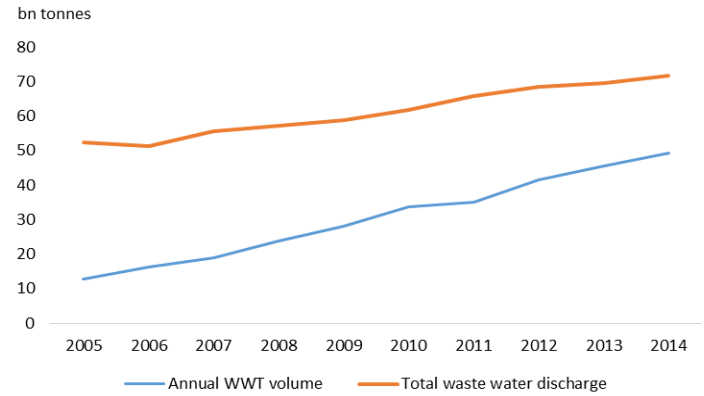
Referring to Figure 10, in order to cater to the huge demand from urban WWT, the corresponding infrastructures construction has been catching up. Within a decade, the number of urban WWT plants surged from 764 in 2005 to 6,031 in 2014. Meanwhile, the designed capacity tripled up from 52mn tonnes/day to 180mn tonnes/day, recording a CAGR of 14.7%. The exponential growth of WWT development narrows the volume spread between the waste water discharge and treatment, referring to Figure 11, but still leaving a gap of more than 20tn tonnes in 2014. The trend line suggests that the scale of waste water treatment could reach saturation soon. However, Figure 12 suggests otherwise. Urbanisation pace is still ongoing, creating room for more urban waste water discharge. As such, we opine that the growth rate of WWT would slow but remain at a stable level.

Figure 10. Urban WWT plants and designed capacity



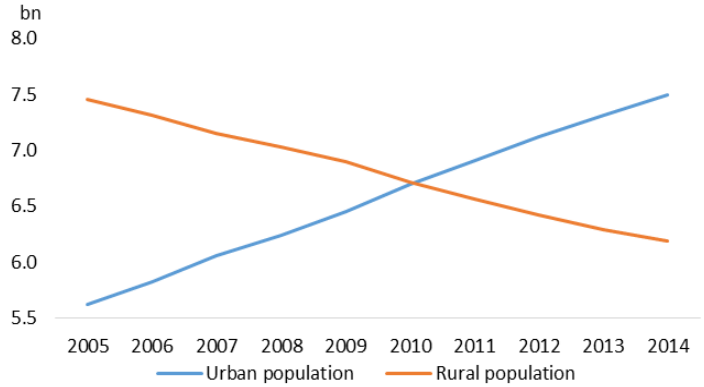
Source: Ministry of Environmental Protection of the PRC, PSR

Figure 11. Volume spread between waste water discharge and WWT



Source: Ministry of Environmental Protection of the PRC, PSR

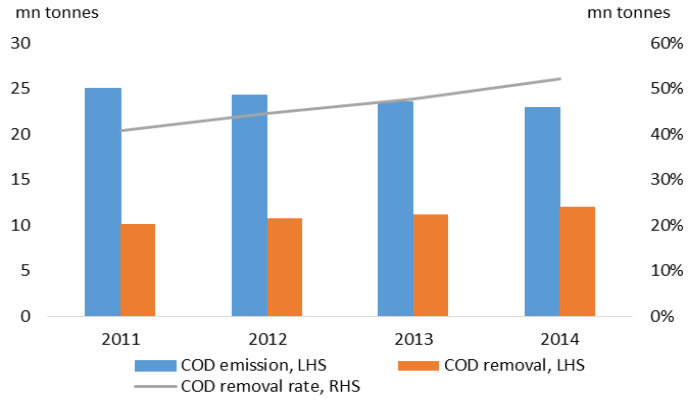
Figure 12. Urban and rural population



Source: National Bureau of Statistics, PSR

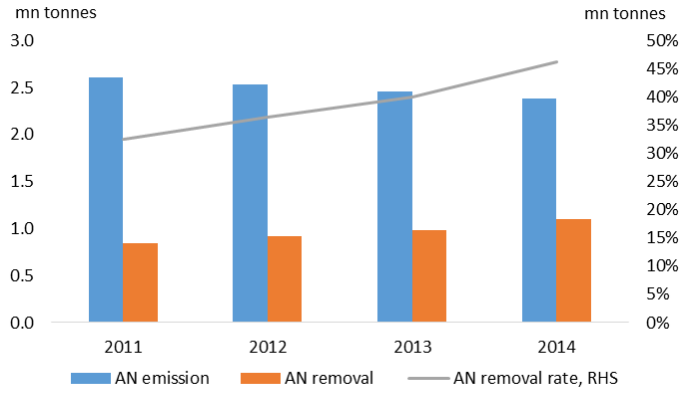
Impetus to improve WWT quality standards, as pollutants in discharge water remain high. The WWT sector follows the Discharge Standard of Pollutants for Municipal Wastewater Treatment Plant [GB18918-2002], with two main indicators of concentration, namely chemical oxygen demand (COD) and Ammonia Nitrogen (AN). Referring to Figure 13 and 14, the WWT quality improved from 2011 to 2014. The average removal rate of COD was lifted from 41% to 52%, and that of AN increased by 14ppt to 46% in 2014.

Figure 13. COD gauge pre- and post-treatment



Source: Ministry of Housing and Urban-Rural Development (MOHURD), PSR

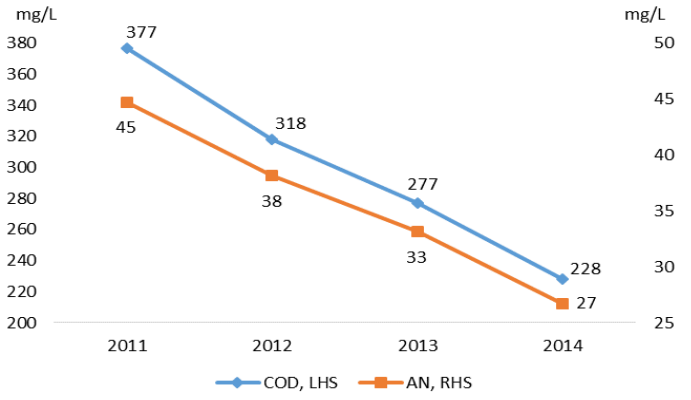
Figure 14. AN gauge pre- and post-treatment



Source: MOHURD, PSR

Then the retained COD and AN amounts are divided by the actual WWT volume to obtain the gauged concentration of each indicator, referring to Figure 15.

Figure 15. Post-treatment concentration of COD and AN



Source: MOHURD, PSR

Compared to the standard on Table 1, the post-treatment AN emission is close to Grade 2, whilst the COD emission is far beyond the lowest standard. The current backdrop of inferior WWT, rising public concerns of the disqualified WWT, coupled with the increasing stringent regulation, bode well with the upcoming tide to upgrade of the existing plants and to enhance the standard of waste water discharge standard for each plant.

Table 1. COD and AN emission standard

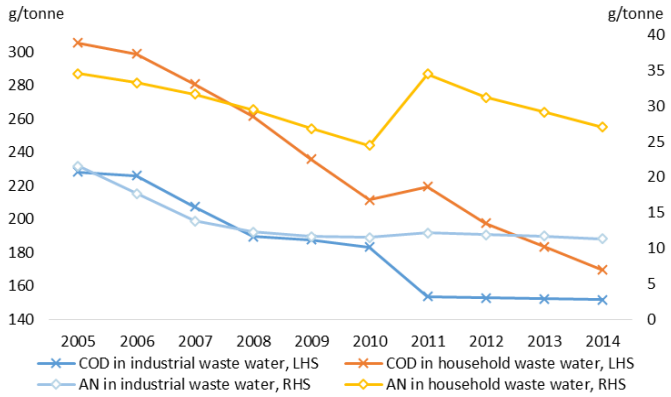
(mg/L)

Indicator	Grade 1		Grade 2	Grade 3
	A	B		
COD	50	60	100	120
AN	5	8	25	-

Source: Ministry of Environmental Protection of the PRC, PSR

Referring to Figure 16, both the COD and AN emission in respective household and industrial waste water were trending downward over the past decade. However, the reduction of industrial COD and AN emission are aligned with the level of industrial waste water discharge, while the amounts of household ones decreased amid the uptrend of household waste water discharge. In coming years, the WWT will be focused on household discharge, as we can see the COD and AN content in household waste water is much more than that in industrial waste water. In order to comply with the discharge standard nationwide, the authorities and the WWT plant operators must put in greater effort to raise the efficiency and effectiveness of the treatment, especially for those who focus in urban household WWT.

Figure 16. The amount of COD and AN in waste water



Source: Ministry of Environmental Protection of the PRC, PSR

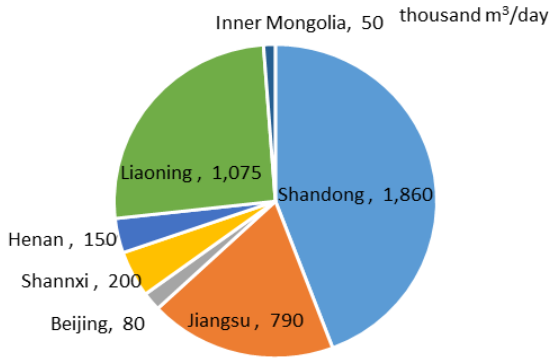
Favourable policies and regulations promote further development of WWT. Water supply, waste treatment and recycle are typical types of utility segments in the public sector, whose developments are propelled by the government and heavily dependent on policy guidance. There are three main aspects that the policies focus on, (i) the direct government capital expenditure in infrastructures such as water plants, pipelines, treatment facilities, and so forth, (ii) the absorption of capitals and the operating involvements from private sectors, and (iii) the improvement of the efficiency of the water tariff pricing scheme. Here, we list some of the latest polices that will benefit the sector.

Policy	Highlight	Opportunity
13th Five-year Plan (2016-2020) on National Economic and Social Development	The respective waste water treatment ratio of municipals and counties reach 95% and 85%	Large WWT capacity expansion
Water Pollution Prevention and Control Plan on the Key Drainage Basins during the 13th Five-Year Plan Period	Prepare the water pollution prevention working plan for their respective administrative areas to set out a list of rivers to be improved and treated	Display clear geographic infrastructure construction demands
Environmental Protection Law	Enhance the strategic position of environmental protection, and integrate environmental protection into economic and social development	Raise the entry level of the industry and reduce the disqualified market participants
Water Pollution Prevention and Control Plan	Reduce the pollutants discharge to water bodies and improve the water quality	Raise the WWT standard
The Implementation Opinions on Cooperation between Government and Social Capital on Water Pollution Prevention and Treatment	Provide the policy framework for the full open of the water industry to social capital and encourage the adoption of the PPP model in the water pollution prevention and treatment sector	More market shares from water segment in public sector release to private sector
Several Opinions of the CPC Central Committee and the State Council on Advancing the Pricing Mechanism Reform	Reasonable improvement of the hike of waste water discharge fee criteria that urban waste water discharge fees should not be lower than the waste water treatment and sludge treatment costs	Incentivize the specialised WWT and sludge treatment enterprises to expand the capacities and raise the discharge standards

Investment Merits

Water treatment capacity keeps ramping up. For CEWL, there are three types of operating projects, WWT, reusable water, and waste water source heat pump. The WWT and reusable water projects are two revenue generating units, and the former is the main driver of the group business. As of Dec 2015, the total daily designed capacity of WWT and reusable water are 4.2mn m^3 and 381.6 thousand m^3. Here we focus on analysing the WWT capacity, referring to Figure 17. CEWL's WWT projects under operation and preparation in Shandong, Jiangsu, and Liaoning contribute approximately 81% of total capacity of the group. The management guided the outlook that the expansion of WWT capacity should fall in the range of 1mn to 1.5mn tonnes/day in FY16.

Figure 17. Geographic breakdown of WWT capacity

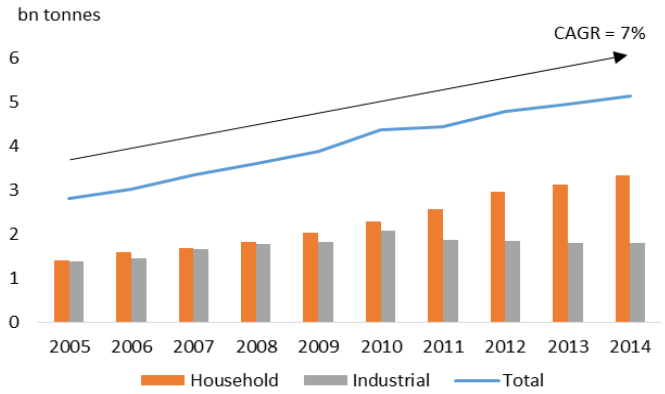


Source: Comapny, PSR

- **Waste water discharge scenario in Shandong Province**
  Shandong is a major agricultural province in the PRC, so the usage of water is relatively high. Referring to Figure 18, the upswing of total waste water discharge volume was driven by household discharge due to the process of urbanisation while recording a CAGR of 7%. Although the volume growth slowed in recent

years, however, it maintained a mild growth rate between 2% to 4%, underpinned by the ongoing urbanization trend.

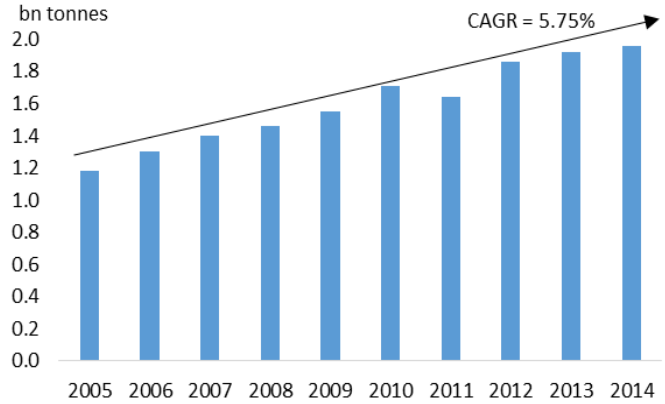
Figure 18. Waste water discharge breakdown



Source: Shandong Statistics Information Net, PSR

As of Dec 2015, the designed daily WWT capacity amounted to 1.86mn m^3 in Shandong Province. We summed up the annual volume of each main city where CEWL operates WWT plants, referring to Figure 19. Catering to WWT demand resulting from the discharge growth, CEWL has been upgrading the plants and expanding the capacity. According to Department of Housing and Urban-Rural Development of Shandong Province, as of Dec 2015, there were 301 WWT plants with a total daily capacity of 13.1mn tonnes in Shandong. Therefore, there is more room for the WWT capacity to grow to match with discharge volume.

Figure 19. Annual waste water discharge volume (Jinan, Qingdao, Zibo, Binzhou, Dezhou, Rizhao)

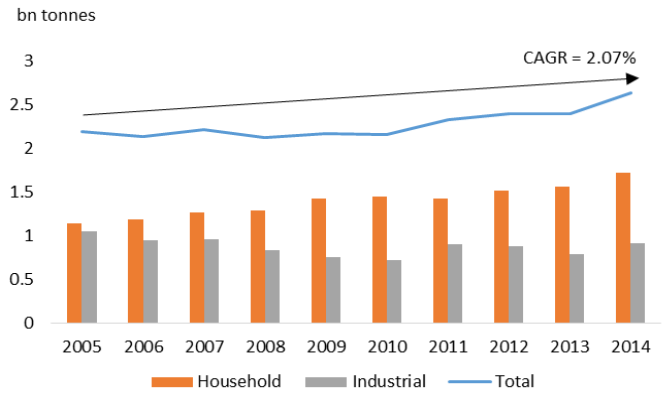


Source: Shandong Statistics Information Net, PSR

- **Waste water discharge scenario in Liaoning Province**

  Liaoning Province is an industrial base, so the industrial waste water discharge is substantially impacted by the move of the manufacturing cycle. Referring to Figure 20, the discharge volume fluctuated over the past decade, while the household waste water discharge volume grew at a modest rate. Likewise, the uptrend of household waste water discharge volume offset the drop of industrial discharge volume, leading to a low CAGR of 2.07%. According to the draft outline of the 13th Five-Year Plan on national economy and social development of Liaoning Province, Liaoning will enhance the construction of pipeline network and initial the project of 56 urban WWT plants upgrading and reconstruction in 2016.

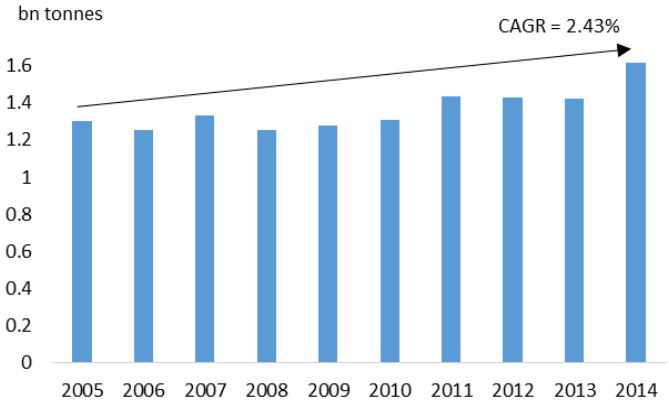
Figure 20. Waste water discharge breakdown



Source: Liaoning Statistics Information Net, PSR

As of Dec 2015, the designed daily WWT capacity reached 1.075mn m^3 in Liaoning Province. The total annual volume of each main city where CEWL operated WWT plants was growing at a CAGR of 2.43% from 2005 to 2014, referring to Figure 21.

Figure 21. Annual waste water discharge volume (Shenyang, Dalian, Anshan, Dandong, Panjing)

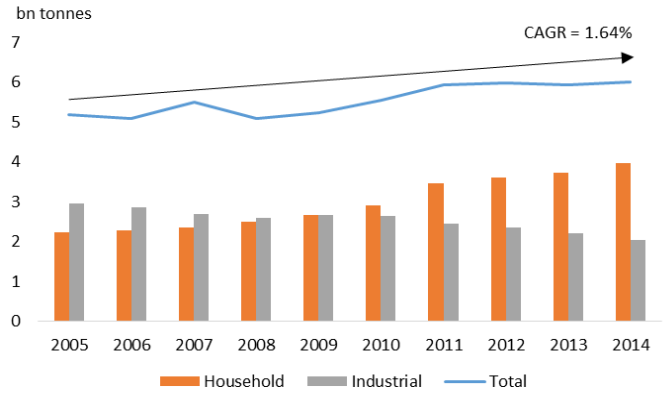


Source: Liaoning Statistics Information Net, PSR

- **Waste water discharge scenario in Jiangsu Province**

From 2005 to 2014, the total annual waste water discharge volume was stable in Jiangsu Province. On the first half of the period, the volume fluctuated within 5.1bn to 5.5bn tonnes per annum, but it levelled up by 0.5bn tonne for the second half period. Therefore, the waste water discharge volume recorded a moderate CAGR of 1.64%, referring to Figure 22.

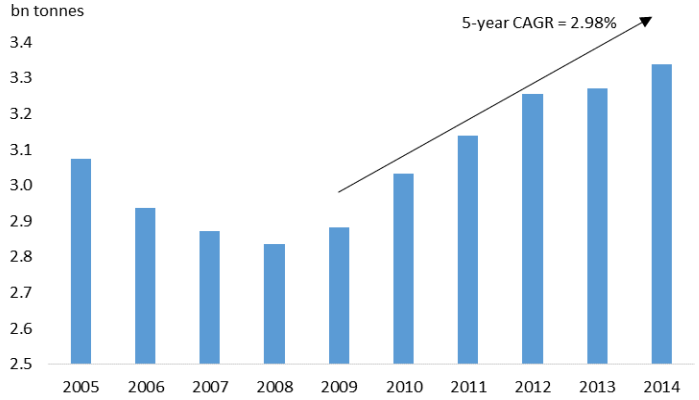
Figure 22. Waste water discharge breakdown



Source: Jiangsu Statistical Yearbook, PSR

As of Dec 2015, the designed daily WWT capacity reached 790 thousand m^3 in Jiangsu Province. The total annual volume of each main city where CEWL operated the WWT plants displaced a V-shape trend, referring to Figure 23. Prior to 2008, the reduction was mainly subject to the decrease industrial waste water discharge volume amid the flat growth of household waste water discharge. The manufacturing activities resumed from a downturn led by the government's stimulus plans during global financial crisis, thus driving the rebound in waste water discharge volume. The 5-year CAGR was recorded at 2.98% from 2009 to 2014.

Figure 23. Annual waste water discharge volume (Nanjing, Wuxi, Suzhou, Lianyungang, Yangzhou)



Source: Institute of Public & Environmental Affairs, PSR

Potential room of water tariff hike brings higher margin. In Jan-2015, the National Development and Reform Commission, the Ministry of Finance, and the Ministry of Water Resources together published the Notice of Issues Concerning the Standards for the Collection of Water Resource Fees, which mandated that urban waste water discharge fees are to be lifted by no less than Rmb0.95 and Rmb1.4 for resident and non-resident usage, respectively, by the end of 2016. Favoured by the central government, the WWT sector is riding on the tailwind to enhance its margins, especially for those enterprises that have established the economy of scale.

Referring to Table 2, we listed waste water discharge fees of the major cities where CEWL's projects were under operation. CEWL's WWT plants are expected to increase their water tariffs this year, as the progressive waste water pricing scheme will be implemented gradually nationwide. Together with the "One Plant One Tariff" mechanism, the fee collections from the current WWT projects are expected to grow in FY16.

Table 2. Waste water discharge fees

Rmb/tonne

City	Resident	Non-resident	Ad hoc usage	Implementaion date
Shandong Province				
Jinan	1	1.3	1.3	May-15
Qingdao	1	1.25	1.25	Sep-15
Zibo	1	1	1	N/A
Dezhou	city: ≥0.95 county: ≥0.85	city: 1.4 county: ≥1.2	city: ≥1.4 county: ≥1.2	By end of 2016
Binzhou	0.95	0.95	0.95	TBC in 2016
Rizhao	0.85	1.15	1.15	Oct-16
Liaoning Province				
Shenyang	city: ≥0.95 county: ≥0.85	city: 1.4 county: ≥1.2	city: ≥1.4 county: ≥1.2	By end of 2016
Dalian	0.8	1.2	1.7	Aug-12
Anshan	0.6	0.85	1.2	Jan-13
Dandong	0.6	1.1	1.5	N/A
Panjing	0.6	0.9	1.2	Dec-04
Jiangsu Province				
Nanjing	1.42	1.6	1.65	Jul-12
Wuxi	1.3	1.6	1.6	2015
Suzhou	1.35	1.35	1.62	Aug-13
Lianyungang	1.05	1.11	1.25	Jan-13
Yangzhou	up to 1.6	up to 1.6	up to 1.6	By end of 2016

Source: h2o-china.com, PSR

Apart from the policy benefits, the upgrade of discharge standard to Grade 1A can also prioritise these plants to hike the water tariff. So far, 2 out of 17 Dongda's projects had their tariffs hiked, and the rest of the plants are awaiting for their individual discharge standards to be upgraded. Meanwhile, 60% of Dongda plants' discharge standard is still of Grade 1B or below, while only 20% of those under CEW and HanKore is below Grade 1A. In retrospect, as of Dec 2015, the weighted average water tariffs of projects under China Everbright Water, Hankore, and Dalian Dongda were Rmb1.17/tonne, Rmb1.1/tonne, and Rmb0.83/tonne, respectively. According to the management, the tariffs of Dongda's WWT plants are below average, and they see a potential 30% to 50% growth by end of FY16.

How Do We View?

Cash hoard for M&A spree. At the end of FY15, the cash on hand surged to HK$1,769mn, compared to HK$681mn in FY14. The granted bank credit was HK$6bn in FY15, and the new increment amounts to HK$4bn to 5bn in FY16. Furthermore, CEWL secured a long-term loan of US$140mn from International Finance Corporation (IFC) in FY15, and the IFC funds have not been utilised. The diversified fund sources and abundant funds have amassed capabilities to tender the projects. After all, such businesses are capital-intensive.

In the past two years, CEWL completed two large acquisitions, the reverse takeover of HanKore Environment Tech Group in FY14 and acquisition of Dalian Dongda Water in FY15. The Group expects to continue its M&A momentum to achieve significant inorganic growth, and targets a benchmark return of 8% based on internal rate of return. The management guided that the Capex in FY16 will be no less than HK$2bn to fund M&A moves and construction of new WWT plants.

Short-term catalyst: Zhenjiang Sponge City

- **Background introduction**

  A number of cities in China have been experiencing waterlogging and water

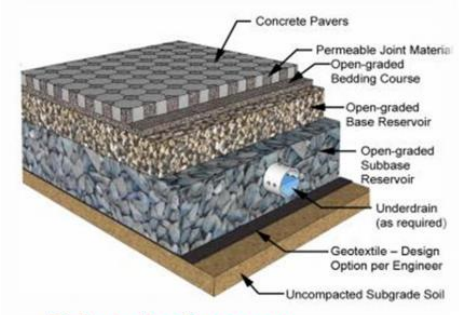
shortage issues at the same time since they have been overly developed, leading to deteriorating drainage system with land-hardened problems and severe water pollution. In 2012, the Low-carbon Urban Development and Technology Forum has initially introduced the concept of sponge city. Afterwards, the central government began to promote it, referring to Table 3. Sponge city is a city with a water system which operates like a sponge, absorbing, storing, infiltrating and purifying rainwater before releasing the treated waste water for reuse when necessary.

Table 3. Chronology of sponge city policy and guidance

Date	Authority	Policy/Guidance	Remarks
Dec-13	Central Urbanisation Work Conference	To construct sponge cities with natural accumulation, natural infiltration and natural purification	Central government signals to start the Sponge city project
Oct-14	MOHURD	*Technical Guidelines for Sponge City Construction*	Promotion of Low Impact Development (LID) and resilient urban development
Jan-15	Ministry of Finance	*Notice on Carrying Out Pilot Sponge City Construction with Central Financial Support*	Central government subsidies: (3 years) Rmb600mn/year for municipalities Rmb500mn/year for provincial cities Rmb400mn/year for other cities Additional grant of 10% on the foregoing basis for cities with PPP model of a certain scale
Apr-15	MOHURD, Ministry of Finance, and Ministry of Water Resources	Announcement of the first 16 pilot sponge cities	Zhenjiang is one of the pilot cities
Oct-15	State Council	*Guidance on Promoting Sponge City Construction*	A goal for the absorption and usage of floodwaters at 70% The goals for sponge city construction at 20% of the built area by 2020, and 80% by 2030
Mar-16	MOHURD, Ministry of Finance, and Ministry of Water Resources	Application for the second batch of sponge cities	Accelerate investments in Sponge city projects

- **Sponge city investment merits**

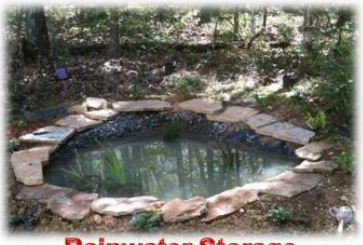
The Zhenjiang Sponge City Project is one of the 16 “sponge city” pilot projects which are engaged in the protection of existing urban ecosystem, ecological restoration and reparation, and the low impact development of new and existing urban ecosystem. Generally, it involves infrastructure construction such as rainwater pipeline networks, river restoration and reparation, and rainwater reusable systems etc. The relative scale of such projects is large enough to provide ample investment opportunities for the private sector. According to MOHURD, more than 130 cities have proposed a sponge city construction plan, the market of which is estimated to be trillion RMB.



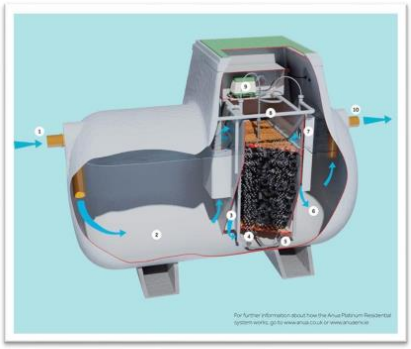
Rainwater Seepage

Rainwater Bioretention

Rainwater Drainage



Rainwater Storage



Rainwater Purification

Rainwater Reuse

Water Purification Plant

Source: Company, PSR

- **Opportunities and challenges for CEWL**

  CEWL together with Zhenjiang Waterworks Corporation have established a 70:30 joint venture company with a registered capital of Rmb462mn. Total investment is estimated to be Rmb2.6bn. Out of which, Rmb1.4bn will be undertaken by the JV

company and the remaining amount will be subsidised by the PRC central government. The company is engaged in the construction and operation of two WWT plants, rainwater pump station, drainage network stations, rainwater storage tanks, and ecological restoration and repair of certain rivers.

The sponge city is an integrated project, whose investment scale outnumbers those of singular WWT or reusable water projects that CEWL has traditionally operated. However, considering the scale, CEWL may be facing challenges in terms of financing requirement, engineering construction, and project management. Besides, the Zhenjiang project is one of the 16 pilot sponge cities, where the central government pays close attention to. The completed quality impacts not only on its reputation but also the continuity to successfully tender for such projects going forward. Therefore, the development of Zhenjiang Sponge City Project is a significant milestone as well as opportunities for CEWL to gain insights on the process to integrate the industrial chain.

Investment Risks

Here we list the key risks for reference:

Risk factors	Remarks
Interest rate risk	The gearing ratio increased from 35% in FY14 to 48% in FY15. As of Dec-15, the financing cost of the group is 4.5%, and CEWL aims to lower the cost to 4% to 4.5% in FY16.
Foreign currency risk	Foreign currency loans take up 30% of the whole borrowing.
Credit risk	The major counterparty is the local government where the WWT plants operate. The risk is mainly attributable to service concession financial receivables and trade and other receivables.
Liquidity risk	Interest coverage ratio: 5.6x in FY15 and 5.7x in FY14

Source: Company, PSR

Valuation Methodology:

Our primary valuation method is using the simple average of FY16e P/E ratio of comparable peers. Since CEWL operates business in China, we use those companies that also operate the WWT and related business in China as comparable peers. As shown below, the major peers are listed in Hong Kong and China.

However, we excluded Beijing Enterprises Water Affairs Group Ltd, Beijing Originwater Technology Co Ltd, and Chongqing Water Group Co Ltd, which have significantly larger market cap and operation scale in our calculation.

We initiate CEWL with an **Accumulate** rating and a target price is **$0.73**, based on estimated 3.8 Singapore cents FY16 EPS and a P/E ratio of 19.3x. This implies an upside of 14.6% (including dividends) from the last closing price.

Table 4. CEWL Peer Comparison Table

Company	Bloomberg Ticker	Mkt Cap (SGD mn)	EV (SGD mn)	EV/EBITDA TTM	P/E	FRW P/E	P/B	Net D/E (%)	ROA (%)	ROE (%)
China Everbright Water Ltd	CEWL SP	1,664.1	2,264.9	15.3	23.0	18.7	1.4	41.8	6%	3%
Singapore										
SIIC Environment Holdings Ltd	SIIC SP	1,523.2	2371.8	18.0	18.5	15.5	1.3	42.8	3.5	7.9
Hong Kong										
Beijing Enterprises Water Group Ltd	371 HK	7,267.8	12,530.5	18.3	16.9	14.1	2.6	121.6	4.2	15.4
CT Environmental Group Ltd	1363 HK	2,454.6	2,811.8	22.3	25.8	15.9	5.3	56.0	13.7	27.2
China Water Affairs Group Ltd	855 HK	1,064.1	2,391.6	10.3	15.0	14.8	1.4	59.4	2.5	9.7
Average				**17.0**	**19.2**	**14.9**	**3.1**	**79.0**	**6.8**	**17.4**
China										
Beijing Originwater Technology Co Ltd	300070 CH	10,280.4	9,833.9	25.7	34.1	22.8	3.6	Net Cash	9.9	13.8
Chongqing Water Group Co Ltd	601158 CH	6,912.8	6,346.7	15.4	21.7	20.9	2.4	Net Cash	7.7	11.6
Guangxi Nanning Waterworks Co Ltd	601368 CH	2,093.2	2,530.5	242.6	38.0	N/A	5.3	188.2	4.2	16.6
Tianjin Capital Environmental Protection Group Co Ltd	600874 CH	2,055.2	2,335.8	165.2	32.3	25.7	2.6	26.5	3.4	8.3
Jiangsu Jiangnan Water Co Ltd	601199 CH	1,816.0	1,566.6	177.7	30.3	24.4	3.7	Net Cash	7.4	13.1
Wuhan Sanzhen Industry Holding Co Ltd	600168 CH	1,634.4	2,011.3	169.9	23.9	N/A	1.8	33.8	4.1	7.7
Heilongjiang Interchina Water Treatment Co Ltd	600187 CH	1,609.5	1,795.9	N/A	N/A	N/A	3.0	20.6	-3.6	-5.5
Average				**132.8**	**30.1**	**23.5**	**3.2**	**67.3**	**4.7**	**9.4**

Source: Bloomberg, Phillip Securities Research (Singapore) Estimates

Average (comparable companies, excluding CEWL)				**115.1**	**26.3**	**19.3**	**3.1**	**61.0**	**4.4**	**10.6**

Source: Bloomberg, Phillip Securities Research (Singapore) Estimates

Financials

Statement of Total Return and Distribution Statement

Y/E Dec, HK$ mn	FY14	FY15	FY16e	FY17e	FY18e
Revenue	**1,051**	**1,815**	**2,536**	**3,326**	**4,149**
Cost of sales	(454)	(991)	(1,360)	(1,836)	(2,305)
Gross profit	**596**	**824**	**1,176**	**1,491**	**1,843**
Other income	13	104	124	165	209
Other operating expenses	(9)	(10)	(10)	(10)	(10)
Administrative expenses	(78)	(204)	(293)	(399)	(505)
Operating profit	**523**	**714**	**997**	**1,248**	**1,538**
Finance income	2	10	10	11	12
Finance costs	(92)	(128)	(217)	(240)	(308)
Profit before tax	**433**	**596**	**790**	**1,019**	**1,242**
Income tax	(119)	(172)	(229)	(295)	(360)
Net income	**314**	**424**	**561**	**723**	**882**

Per share data

Y/E Dec	FY14	FY15	FY16e	FY17e	FY18e
EPS (HK Cents)	12.6	16.2	21.5	27.7	33.8
EPS (SG Cents)	2.2	3.0	3.8	4.9	6.0
DPS (HK Cents)	N/A	1.9	2.5	3.3	4.0
DPS (SG Cents)	N/A	0.35	0.45	0.58	0.71
BVPS (HK$)	2.5	2.7	2.8	3.0	3.3
BVPS (SG Cents)	43.4	49.5	49.8	53.3	57.8

The HKD/SGD rate is based on Bloomberg forward rate as of 6th May 2016

Cash Flow

Y/E Dec, HK$ mn	FY14	FY15	FY16e	FY17e	FY18e
CFO					
Profit before tax	433	596	790	1,019	1,242
Adjustments	122	166	289	312	380
WC changes	(173)	(635)	(1,646)	(2,011)	(2,034)
Cash generated from ops	382	128	(568)	(680)	(412)
Others	(65)	(95)	(229)	(295)	(360)
Cashflow from operations	**317**	**33**	**(797)**	**(976)**	**(772)**
CFI					
CAPEX, net	(3)	(10)	-	-	-
Acquisition of subsidiaries	431	(2,163)	-	-	-
Others	3	(4)	10	11	12
Cashflow from investments	**430**	**(2,177)**	**10**	**11**	**12**
CFF					
Share issurance, net	-	659	-	-	-
Loans, net of repayments	(149)	2,909	515	1,515	1,515
Dividends	-	-	(50)	(66)	(86)
Others	(339)	(614)	(217)	(240)	(308)
Cashflow from financing	**(488)**	**2,954**	**248**	**1,209**	**1,121**
Net change in cash	**259**	**809**	**(538)**	**244**	**362**
Effects of exchange rate	(6)	(20)	-	-	-
Ending cash	**499**	**1289**	**750**	**995**	**1357**

Balance Sheet

Y/E Dec, HK$ mn	FY14	FY15	FY16e	FY17e	FY18e
ASSETS					
Cash and cash equivalents	681	1,769	1,282	1,678	2,191
Trade and other receivables	331	642	909	1,086	1,285
Financial receivables	667	893	912	957	1,029
Inventories	29	11	11	11	11
Total current assets	**1,709**	**3,315**	**3,113**	**3,731**	**4,516**
PP&E	174	163	149	135	121
Financial receivables	6,219	7,713	8,934	10,566	12,171
Intangible assets	951	1,440	1,382	1,324	1,266
Goodwill	1,044	1,269	1,269	1,269	1,269
Trade and other receivables	16	40	56	67	79
Total non-current assets	**8,403**	**10,624**	**11,789**	**13,361**	**14,906**
Total Assets	**10,112**	**13,939**	**14,903**	**17,092**	**19,422**
Borrowings	763	2,395	1,910	1,425	940
Trade and other paybales	600	475	599	744	890
Other financial liabilities	23	-	-	-	-
Current tax liabilities	20	52	52	52	52
Total current liabilities	**1,405**	**2,922**	**2,562**	**2,222**	**1,882**
Borrowings	1,062	2,424	3,424	5,424	7,424
Other payables	264	241	241	241	241
Deferred tax liabilities	829	1,055	1,055	1,055	1,055
Total non-current liabilities	**2,155**	**3,720**	**4,720**	**6,720**	**8,720**
Total liabilities	**3,560**	**6,642**	**7,281**	**8,941**	**10,602**
Shareholders equity	**6,325**	**7,061**	**7,370**	**7,882**	**8,529**
Non-controlling interests	226	236	252	269	291

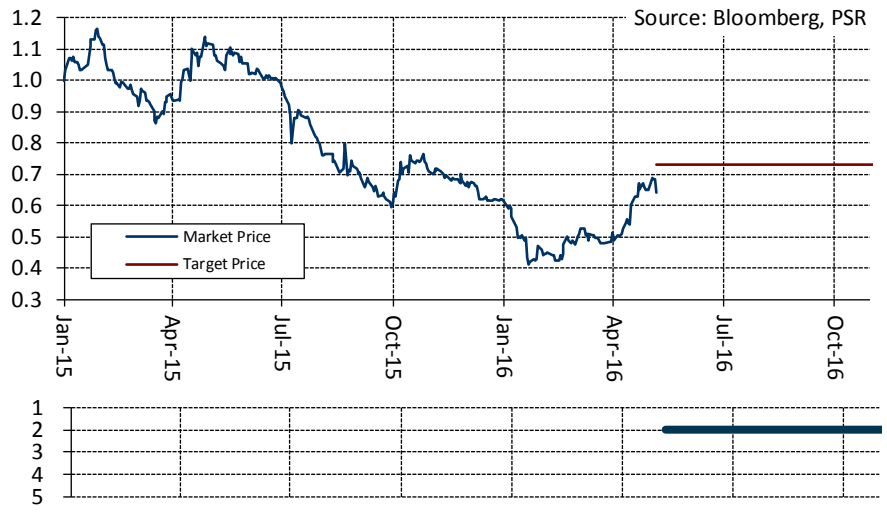
Valuation Ratios

Y/E Dec	FY14	FY15	FY16e	FY17e	FY18e
P/E(x)	46.4	20.7	16.9	13.1	10.7
P/B (x)	2.3	1.2	1.3	1.2	1.1
EV/EBITDA (x)	28.7	15.0	12.7	11.1	9.7
Growth & Margins (%)					
Growth					
Revenue	-19%	73%	40%	31%	25%
Gross profit	13%	38%	43%	27%	24%
EBIT	10%	37%	40%	25%	23%
NPAT	8%	35%	32%	29%	22%
Margins					
GPM	56.8%	45.4%	46.4%	44.8%	44.4%
OPM	87.7%	86.7%	84.8%	83.7%	83.4%
NPM	29.9%	23.3%	22.1%	21.7%	21.3%
Key Ratios					
ROE (%)	5%	6%	7%	9%	10%
ROA (%)	3%	3%	4%	4%	5%
Dividend Yield (%)	N/A	0.6%	0.7%	0.9%	1.1%
Net Debt or (Net Cash)	6,551	7,297	7,621	8,151	8,820
Gearing (%)	35%	48%	49%	52%	55%

Source: Company, Phillip Securities Research (Singapore) Estimates

*Forward multiples & yields based on current market price; historical multiples & yields based on historical market price.

Ratings History



PSR Rating System

Total Returns	Recommendation	Rating
> +20%	Buy	1
+5% to +20%	Accumulate	2
-5% to +5%	Neutral	3
-5% to -20%	Reduce	4
< -20%	Sell	5

Remarks

We do not base our recommendations entirely on the above quantitative return bands. We consider qualitative factors like (but not limited to) a stock's risk reward profile, market sentiment, recent rate of share price appreciation, presence or absence of stock price catalysts, and speculative undertones surrounding the stock, before making our final recommendation

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