China Environmental Technology

Alternative sub-urban wastewater treatment

to summarize…

- Tapping into wastewater treatment business with Beijing Capital support
- Upgrade of an existing wastewater treatment plant for extra return
- Magnetic separation treatment technique – lower cost & higher system mobility
- Target to quickly penetrate sub-urban area with sound customer economics
- Contracts on hand and preliminary P/E estimate for year 2011 – 7.9x

Tapping into wastewater treatment business with Beijing Capital support. In Nov 2009, the previous controlling shareholder sold 600m existing shares (later enlarged to 1,200m shares), or 53.74% shares, at HK$0.15 per share to a group of investors. The group includes the new chairman Mr Xu Zhong Ping (60%), Beijing Capital (600008 CH) (15%) and other managements / directors (25%). Shortly in April this year, the company acquired Hulu Island wastewater processing project for 30 years at HK$55m with HK$40m cash and HK$15m at HK$0.40 per share. In Dec this year, BJ Capital raised its equity interest to 9.37% from 7.46% when the company further placed new shares to 3 investors, including 62.3m to Ajia Partners, another 46.1m to BJ Capital and 34.6m to Senrigan Capital. The company would focus on wastewater treatment business with the support of BJ Capital in the future.

Upgrade of an existing wastewater treatment plant for extra return. For 1H FY03/11A, Hulu project acquired yielded HK$39.7m one-time gain and HK$3.8m re-current EBIT for the half year. Assuming EBIT of HK$7.6m for a year and 25% tax rate, net income of the project for the coming year could be HK$5.7m. With respect to an upgrade plan, the company committed RMB165m investment to boost 70,000 tonnes daily capacity of grade II treatment to 120,000 daily tonnes of grade IA. Upon completion, treatment fee could be raised to RMB0.97 per tonne from RMB0.70 per tonne, which could provide HK$20m EBIT or HK$14.7m net income. Preliminary estimates of pre-upgrade and post-upgrade ROI are 10.3% and 5.9%.

Table 1. Preliminary profit estimates of Hulu Island project

HK$	Pre-upgrade	Post-upgrade
Fee income	17,346,000	41,205,600
Direct cost	(7,434,000)	(12,744,000)
Gross profit	9,912,000	28,461,600
Depreciation	(1,833,333)	(8,323,333)
Other expenses	(520,380)	(520,380)
EBT	7,558,287	19,617,887
Tax expenses	(1,889,572)	(4,904,472)
Net income	5,668,715	14,713,415
ROI	10.3%	5.9%

Source: SBI E2-Capital

Magnetic separation technique of lower cost and higher system mobility. CET plans to monetize its magnetic separation technique in wastewater treatment. According to management statistics, for 10,000-tonne daily capacity, its system could sell at a price as low as RMB5m, while investment on conventional flocculation + sand filter system could be as much as RMB10m to 15m. At lower initial investment as well as lower direct operational cost, effluent could still meet national discharge standard II to IB (城鎮污水處理廠污染物排放標準) GB18918-2002. While this technique permits simpler structure in substantially smaller size at one-tenth of a conventional system, CET system could be vehicle-mounted and ship-borne, an excellent candidate for sub urban area or urgencies.

Ticker	**0646 HK**
Rating	**Not Rated**
Price (HK$)	0.45
Target Price (HK$)	n.a.
12m Price Range (HK$)	0.32-0.76
Market cap. (US$m)	139.2
Daily t/o (US$m)	0.5
Free float (%)	26.4

Financial summary

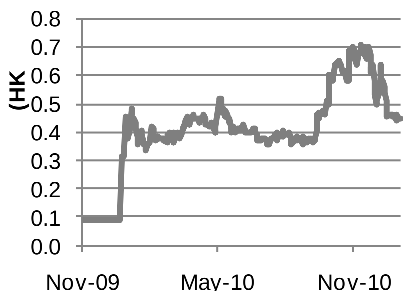
Year to Mar	08A	09A	10A
Turnover (HK$m)	298.9	189.4	147.3
Net Profit (HK$m)	7.1	(14.8)	3.7
EPS (RMB)	0.003	(0.006)	0.002
P/E (x)	152.9	n.a.	290.4
P/B (x)	8.92	5.78	5.57
EV/EBITDA (x)	66.4	n.a.	92.6
Yield (%)	n.a.	n.a.	n.a.
ROE (%)	6.2	(9.6)	2.0
ROCE (%)	6.2	(9.6)	2.0
N. Gear. (%)	net cash	net cash	net cash

Source: SBI/Bloomberg

	09F	10F	11F
Consensus EPS (RMB)	n.a.	n.a.	n.a.
Previous earnings (RMBm)	-	-	-
Previous EPS (RMB)	-	-	-

Price performance

Year to Dec	1m	3m	12m
Relative to HSI (%)	(12.2)	(28.4)	12.0
Actual price changes (%)	(11.8)	(25.0)	20.0



Source: Bloomberg

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Business model of mobile wastewater treatment. The company researches magnetic separation technique, outsources production to OEM companies and directly sells the processing units. Target customers are regional governments in rural area and sub-urban area. Upon signing contracts, the company is expected to receive 5%-10% deposits. After expected production period of 100 days, the company should receive another 80%-85% contract value upon delivery with credit terms of up to 3 months. In 1 year after delivery, the company should be able to retrieve the remaining 10% cash. Under this sales arrangement, the company is essentially asset-light. Capital requirement is mainly working capital, which is equivalent to around 6 months COGS due to 3-month production cycle and 3-month credit terms. For instance, annual COGS of 150 processing units with 5,000 tonnes daily capacity each would worth up to RMB225m (assuming RMB3m ASP and RMB1.5m COGS each). Working capital requirement would be around RMB112.5m.

Customer economics of the new wastewater treatment system. We made several assumptions to determine whether customers are willing to buy CET's products. Using this mobile wastewater treatment system does not require construction of regular networks to collect wastewater. Instead, each village could have simple pipes erected by regional government to direct wastewater to a centralized storage. Assuming each village produces 300 tonnes wastewater a day, a mobile system of 2,000 tonnes daily capacity could visit to a village every 4 days to 6 days. A mobile system effectively serves multiple villages to ensure there is sufficient wastewater to be processed. In the base case, we assume a system of 5,000 tonne daily capacity would be fully utilized for 300 days with treatment fee of RMB0.70 per tonne. With average RMB0.30 per tonne COGS and other operating expenses, we expect RMB289.5m EBT and RMB217.1m net income in base case. That said, EBT / I would be 9.7% and ROI could be 7.2%, which could sound attractive comparing to conventional solutions.

Table 2. Customers economics of mobile wastewater treatment system with 5,000 tonne daily capacity

RMB	Base case	Quality management
Fee income	1,050,000	1,155,000
Direct cost	(450,000)	(495,000)
Gross profit	600,000	660,000
Depreciation	(300,000)	(300,000)
Other expenses	(10,500)	(11,550)
EBT	289,500	348,450
Tax expenses	(72,375)	(87,113)
Net income	217,125	261,338
EBT / I	9.7%	11.6%
ROI	7.2%	8.7%

Source: SBI E2-Capital

Contracts on hand and preliminary P/E estimate for 2011 – 7.9x. Until latest applicable day, the company holds contracts of 9 mobile systems and 2 fixed systems which together worth RMB47.4m. There are 65-85 units in negotiation in Beijing, Changsha, Tianjin, Jiangsu and Nanjing. Leverage on sales and marketing power of Beijing Capital by forming a JV, the company expects to capture significant amount of contracts from 2011 onwards. For 2011, if the company is to sell 150 units with 5,000 tonne daily capacity for RMB3m each, total revenue for the segment could be RMB450m with 26.3% net profit margin. Our back of pad estimates, which assumes RMB118.1m net profit from this segment and break-even of other segments, essentially suggest 7.9x P/E for 2011F (not FY03/11F).

Table 2. Customers economics of mobile wastewater treatment system with 5,000 tonne daily capacity

RMB m	Profit and loss F	Profit margin
Sales income	450.00	
Direct cost	(225.00)	
Gross profit	225.00	50.0%
Other expenses	(67.50)	
EBT	157.50	35.0%
Tax expenses	(39.38)	
Net income	118.13	26.3%

Source: SBI E2-Capital

Competitive magnetic separation technique in progress of patent application. According to the management, the company commercialized a US technological concept and turned it into low cost system. Currently the company has applied for patents for "Method and system for removal of contaminants in liquid" as well as passing general examination for "High concentrations of activated magnetic sludge for wastewater treatment".

Risk factors. We believe CET business model bear certain risks: 1) penetration into sub-urban area or rural area could be slower than expected; 2) cash recovery of sales to regional government or other entities may be slower than expected; 3) its magnetic separation technique may be less efficient than expected in the long run; 4) CET may not be able to obtain the patents regarding the magnetic separation technique it is applying.

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