

EXECUTIVE INSIGHTS

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China Cleantech Investing in 2011: Back in Full Swing – New Sectors Emerging

Following a surge in cleantech investing 4-5 years ago, it looked for a number of years as if the focus from private equity investors was moving away. The Copenhagen summit on climate change was a disappointment and as the global financial crisis has unraveled, many investments made around that time have turned sour. Yet in 2011, when we consider the broader cleantech landscape beyond traditional renewable sectors, we can see that there has been a steady rise in investment in China. In fact, investors in the field have been more active than ever before and dealflow is amongst the highest across all sectors in China. In this update, we explore the recent trends in cleantech investing in China and argue that the sector should be given further consideration by investors looking for attractive investment opportunities.

We define the cleantech industry quite broadly to include all companies involved in production, processing and other operations that have a smaller environmental footprint, and/or create less pollution, than conventional technologies. Fundamentally these are companies that are addressing one or more of the pressing global needs for cleaner air and water, reduced and cleaner energy consumption, and the safeguarding and improvement of living environments. The industry should be defined in this way to encompass more than just the traditional focus on renewable energy, an area which has received a great deal of attention in recent years on the back of spectacular fortunes made (and in some cases, lost) by Chinese businesses focussed on wind and solar power.

Thus, cleantech can incorporate a range of technologies and sectors such as recycling, information technology, transportation solutions, chemicals and lightweight materials, and lighting – essentially any application that provides energy efficient services or reduces air or water pollution. Investment in these new areas has been driven by increased public awareness and government initiatives, particularly in recent years, following the renewable energy investment boom.

Considering first the global picture, cleantech investment has increased over the last 5 years to reach US\$243bn in 2010 and estimates from the United Nations suggest that 2011 is expected to repeat last year's strong performance. The vast majority has been in the form of project financing and infrastructure funds, with private equity and venture capital historically accounting for a small portion of total investment (c.3-5%). However, despite this relatively small scale, PE and VC activity in the industry remained strong over the last 3 years with most of the funds starting in the 2006-08 period still having ample dry powder.

According to the Bloomberg New Energy Finance, venture capital and PE firms in the third quarter of this year invested US\$2.23bn into 189 cleantech deals, representing the best performance since the economic crisis. Given current market uncertainty, investors are charging a higher risk premium which is supressing valuations. This is increasing the opportunity for larger returns in an industry where the long-term fundamental

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drivers are strong. However, at the other end, market conditions mean exiting any investment remains challenging with little appetite for new IPOs and investors having to accept lower valuations. Globally, power generation has continued to be the most popular sector for investment, followed by clean fuels, and with recycling and waste treatment a close third.

Cleantech in China: Muscling its Way towards the Top of the Charts

China is seeing a resurgence in interest in cleantech investing. A recent survey of global fund managers listed China amongst the top regions in terms of attractiveness, and the country has taken centre stage in terms of global cleantech investment activity. Of the 14 cleantech-related IPOs during the third quarter of 2011, raising US\$1.7 billion, 11 took place in China. In 2010, according to Bloomberg and PEW Charitable Trust, China invested US\$55bn in clean energy alone, representing a 39% increase on the previous year.

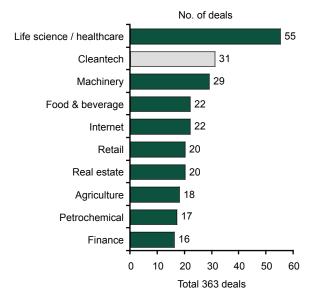
Private equity investors have taken note. In 2010, cleantech was one of the most active sectors in terms of private equity dealflow, with 31 investments made (Figure 1), and cleantech was also amongst the top sectors for PE exits last year (Figure 2). This momentum has been carried through into 2011, with

5 of the 10 largest IPOs in 2011 in China (through August) being in cleantech; 2 in environmental protection, 1 in energy saving (lighting), 1 in solar and another in wind energy. Of the cleantech exits, 11 were floated in overseas exchanges, raising US\$2.6bn in funds. Goldwind's IPO in Hong Kong was the largest, raising US\$920m.

China's cleantech sector has already created significant returns for a number of early investors. *Forbes* magazine reported that 5 of the world's 10 richest green billionaires in 2011 were from China including Zhu Gongshan from GCL-Poly Energy and Han Junliang from Sinovel Wind Group. Private equity players have often played an important role in financing the expansion of these businesses and have been rewarded handsomely.

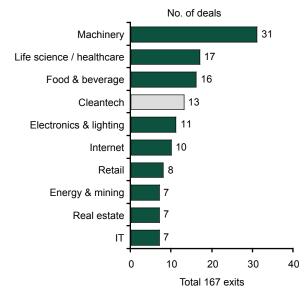
However, it's not all been plane sailing. Clearly, some investors have gotten their hands burned betting on the wrong 'technological breakthrough' that has never materialized or as business performance has deteriorated. The latter has been influenced by a number of factors including the collapse of European subsidies, intensive competitive pressure as new entrants have flooded the market with capacity, and market saturation due to rapid increases in penetration, often induced by 'pressure and incentives' from the Chinese government to adopt certain tech-

Figure 1
PE Investment in China by Sector (2010)



Source: Zero2IPO, L.E.K. research and analysis

Figure 2
PE Exits in China by Sector (2010)





nologies in order to reach energy saving standards. A number of PE investors were simply caught out by the speed at which new technologies were adopted, seeing incredible growth in one year but demand dry up in the following one.

China Cleantech Investing: Where Do We Go Next?

So, the billion dollar question in cleantech investing today is: where next? What is going to make up the next wave of technologies and businesses set to create superior returns for investors? The attractive sub-segments in the Chinese cleantech industry are changing. The industries which experienced the initial investment such as on-shore wind and solar have now matured. These sub-sectors face overcapacity and increased competition which will likely cause consolidation. There may still be some room in these more established areas, though this will rely on the company being able to sustain a cost advantage in a market experiencing substantial downward price pressure.

The next wave of investments will likely be in new power generation sub-segments such as offshore wind farms and environmental protection (waste treatment, pollution monitoring, CBM (coal bed methane) capture). Of the 7 Chinese PE deals over US\$50m made in 2011, 3 were made in environmental protection, including a US\$114m investment by KKR in

United Envirotech Limited, a water purification and treatment company, and a US\$105m investment by a group of investors in Chengdu Xingrong Investment Co., Ltd., which monitors and controls pollution levels (Figure 3).

In September 2010 The State Council, China's cabinet, selected seven national strategic industries that it hopes will advance the nation's economic development and which it is specifically targeting for China to become world leaders in over the next (12th) Five Year Plan period (Figure 4). These industries are: energy-saving and environmental protection; alternative-fuel cars; alternative energy; advanced materials; biotechnology; new-generation information technology; and high-end equipment manufacturing, 3 of which directly relate to the cleantech industry, while advanced materials is indirectly linked through areas such as biodegradable plastics and energy efficient glass.

As is so often the case in China, the government plays an active role in shaping the development of industry and creating conditions for companies to thrive in. Given the stated intention to increase the development of the key strategic industries, companies in these sectors will likely benefit from increasingly favourable government policy in the form of, e.g., reduced red tape, subsidies, tax incentives, and guaranteed loans, just

Figure 3

Examples of Recent Investment in the Clean Energy Sector (January - July 2011)

Investor(s)	Target	Sector	Size of investment (US\$m)	Date
KKR	United Envirotech Limited	Water purification & treatment	114	August 2011
Themes Investment Partners	China Natural Gas, Inc.	Gas supply	91	June 2011
CIC/Standard Chartered PLC/Temasek/Olympus Capital/GE Capital/Invesco Group/Bank of China	Huaneng Renewables Co., Ltd.	Solar energy	230	June 2011
Jiuding Capital	Jiangxi Sornid High-Tech Co., Ltd.	Solar energy	90	June 2011
TPG	Comtec Solar Systems Co., Ltd.	Battery and energy storage technology	97	April 2011
Shanghai Zhengda Investment	Jiangsu Zongyi Co., Ltd.	Solar energy, IC cards	29	March 2011
Zhejiang Tiantang Guigu Investment/ China Life Insurance / Taikang Asset Management/ China Galaxy Investment	Chengdu Xingrong Investment Co., Ltd.	Pollution monitoring and control, water treatment	105	March 2011
Shanghai Zhengda Investment Management Co., Ltd./Jiangsu Winlast Investment & Development Co., Ltd.	Shenzhen TopraySolar Co., Ltd.	Battery and energy storage technology	24	March 2011
CDH Investments	Sinomem Technology Limited	Water purification & treatment	258	March 2011
Jiangsu Winlast Investment/Shanghai Zhengda Investment/Zhejiang Sunny Capital	Heilongjiang Interchina Water Treatment Co., Ltd.	Water purification & treatment	33	January 2011

Source: China Venture, L.E.K. research and analysis

Figure 4 Development of Strategic Government Focus on Cleantech-related Industries

Old pillar industries National defense Telecommunication Electricity Oil Coal Marine shipping Airlines

Source: State Council, NRDC, L.E.K. research and analysis

as was seen in renewable energy over the last 5-7 years. This will encourage increased investment and focus in the sector, providing significant opportunities for private equity firms with the right capabilities to identify and invest in the future market winners.

New strategic and emerging industries Energy saving and environmental protection New energy (nuclear, solar, wind, and biomass) Clean energy vehicles (PHEVs and electric cars) New materials (special and high performance composites) High-end manufacturing Biotechnology Next generation information technology Industries directly contributing to China energy and environment goals

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