



# Wise Uncle to Rescue Australia's 'Teenage' Industry

by John O'Brien, Australian CleanTech

Australia has all the characteristics of a country that should be leading the cleantech world: excellent research capability, mature financial markets, exceptional renewable energy resources, erratic water supplies and very high emissions per capita.

There has certainly been progress over 2012 with the start of the carbon pricing mechanism and its associated A\$1.2 billion grant programmes. These have strengthened the foundations that were started with the 20% Renewable Energy Target, water trading activities, landfill levies and the erratic feed-in tariff schemes. Yet even with all this effort, cleantech in Australia has only just reached its 'teenage' years.

As with a child, it is easy not to notice the growth as it happens and, looking back, it can be amazing to see how things have changed. However, there are some very distinctive teenage characteristics being displayed in Australia's cleantech industry: growth is inconsistent and comes in bursts, leaving the industry uncoordinated; moods are changeable and, overcome by the hormones of inconsistent Government subsidies, tantrums can be frequent and often inexplicable; governance can be unsophisticated and resemble a smelly bedroom 'floordrobe'.

The industry could mature into its full potential or it could go off the rails and become angry and disenchanted. With 'parental' control waning, this outcome will be largely determined by the influence of friends and mentors. Australia's choice of peer groups is therefore a critical factor in its future success. One neighbouring friend is China.

## Cleantech in China

The growth of the Chinese cleantech sector has outstripped its wider economy over the last five years. This has been driven by the Government's need for environmental remediation of dying rivers, city air quality and toxic contamination, and the huge economic opportunity in building these global industries of the future.

China has included a number of ambitious 2015 targets in its current Five Year Plan: carbon intensity reduced by 17%; water intensity reduced by 30%; and non-fossil fuels proportion of

primary energy mix by 3.1%. The Plan also backed seven strategic emerging industries including: energy saving and environment protection; new energy; new materials; and clean-energy vehicles.

The performance of the listed Chinese cleantech companies is tracked by the China CleanTech Index, which follows over 150 companies operating in China. The performance of the market overall has not been good over the last two years owing to the collapse of solar and wind stocks. However, other sub-sectors have performed well, with the waste and environmental sub-sectors leading the way.

Increasingly, and possibly driven by the volatile local stocks, Chinese and other Asian investors are also looking to invest in cleantech companies around the world. VCs such as Tsing Capital in Shanghai and M Venture Investments in Seoul are actively looking for international opportunities.

## Cleantech in Australia

The cleantech industry in Australia is also growing. With 45,000 employees, the sector is the same size as the local automotive manufacturing industry and its \$26 billion of revenue is equal to a quarter of the entire Australian manufacturing sector.

The sector has received some strong, if inconsistent, Government support. However, uncertainty in the policy environment has deterred investors. As a measure of this, the Australian CleanTech Index has had a woeful run over the last few years.

There are, however, some excellent Australian companies developing world-leading technologies. Listed companies such as BluGlass (ASX:BLG - efficient LED manufacturing technology), Carnegie (ASX:CWE - wave energy technology), the Water Resources Group (ASX:WRG - low cost desalination), and CleanTeQ (ASX:CLQ - industrial air and water quality solutions) are all making good progress.

There are also many private companies making global inroads. The winner of the 2012 Australian Cleantech Competition, enLighten Australia, combines Chinese LEDs with Australian software to reduce bills by up to 93%. Other finalists this

year included Biofiba's biodegradable shipping pallets, VR TEK's tyre recycling technology and TropiGlas' clear photovoltaic glass. More widely, companies involved in energy and water efficiency, recycling and new materials appear to be making the most progress.

## A Wise Uncle

The global opportunities for each of these companies are massive. The problem is that the Australian market is small and investors are largely uninterested. Australia has therefore started to look to international markets for both its growth and funding.

China is Australia's largest trading partner and is also its largest source of immigrants. This presents a phenomenal opportunity for the Australian market. In Chinese culture, 'uncle' is used as a term of respect for someone older and with more influence. Australia is gaining increasing access to this 'wise uncle' and is starting to use it to help both countries grow their development and deployment of cleantech.

The companies with the most appeal for Chinese partners are the ones able to solve China's current challenges. Technologies connected with reducing the emissions intensity of industry or with water, waste, recycling, waste-to-energy, renewable energy or electric vehicles are of particular interest.

One example has been built on China's increasing water shortages. China Water Risk details the targeted 55% increase in irrigation water efficiency by 2015 and the RMB4 trillion of water project funding. One Australian company, Rubicon Water, is providing solutions through its smart irrigation systems. The company grew strongly through the Australian drought of the last decade and is now using these same skills in China's agricultural west.

So the cleantech industry is growing slowly and inconsistently in Australia, but if it manages to connect with 'uncle' China, there are amazing opportunities for growth and investment. Whether the Australian industry reaches its full potential may, however, be determined by whether this wise uncle continues to look favourably on its teenage neighbour.

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