

## **Water, water....**

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Australia is blessed with many natural resources to assist the growth of its cleantech sector. Some of the wind resources are exceptional, the wave resources are world leading and the hot rocks are driving big investments into the geothermal sector. Most of all, Australia is synonymous with solar radiation and much of the country has a ridiculous amount of solar resource to play with. There are of course issues with respect to NIMBY complaints for sites near communities and the fact that the best resources are never closest to those population centres – luckily the desert has few back yards to worry about.

Australia has another natural competitive advantage in the cleantech space: one that is not so apparent. The climate is highly variable with respect to its rainfall and as such there can be long periods of drought followed by long 'wets'. Much of South-Eastern Australia is still suffering from the effects of a drought that started in the first years of decade. This has led to severe water restrictions in many areas, with the banning of sprinklers and specified watering days. This variability is likely to be exacerbated by climate change, but its existence is not new. The natural competitive advantage of having little water has therefore made the Australian water industry innovate to survive.

Irrigation is critical to grow crops in a hot, dry country. With water quantities uncertain, the development of some excellent precision irrigation technologies has been required. Many of these are being exported to the world. These contrast with the legacy open channel irrigation systems built in the nineteenth century that evaporate far more water than they deliver.

Australia also has a growing population. The demand for water in the cities is growing for both potable and non-potable uses. Desalination plants are being built in most of the larger cities to guarantee supplies that once came from dams, that have not been refilled for years. There are also world leading projects in stormwater harvesting, aquifer storage and recovery and third pipe systems for grey water recycling.

There are however some hurdles to innovation in the Australian water industry. The utilities are all still bundled state-owned monopolies that pay healthy dividends into government tax revenues. Furthermore, the regulatory system has not yet progressed to consider third party access into the pipes of these natural monopolies. With significant water demand pressure, the freeing up of this commercial regulatory environment would see the emergence of many innovative companies meeting the currently unmet needs of business and household consumers.

The other hurdle that Australians have in general is abject fear of potable wastewater reuse, whether direct or indirect. The public debate on this issue has been farcical and it appears to be some way off before this option is a serious political consideration.

An anomaly for investors looking to take a stake in the Australian water sector is that very few of the leading technology providers are listed. There are many excellent medium sized private companies that have and are looking for private equity and angel investments, but the stock market has few options. The ACT Water Index, a sub-sector of the ACT Australian Cleantech Index, holds only six companies and all but one of these are very small. Two of these companies, Phoslock Water Solutions and the Crane Group are reviewed on the following page.

Of the private companies, there are many to choose from in terms of strong technology, good management and sound commercial models: AquaSpy provides precision irrigation solutions internationally and has a suite of international VC investors; Optimatics uses genetic algorithm software to optimise utility capital spends; both Osmoflo and Desal Systems produce high quality small desalination units; Ioteq produces iodine disinfection systems that both increases productivity and reduces toxicity; CleanFutures is commercialising the AquaSens biosensor technology for the real time measurement of phosphate and nitrate in water. There is no shortage of private companies with great technology.

It is debatable why some of these companies have not moved into the public capital markets when similar sized companies in other sectors have made the jump. Water is certainly a high profile topic, but maybe the conservative nature of the utilities has kept the more innovative companies from being too much in the limelight. The successful companies have also seen much of their growth come from international

markets and so the investors may not have a thorough understanding of the risks associated with these revenue streams.

The focus on water investments is however increasing and it seems likely that there will be a number of companies looking at alternative funding models, possibly including IPOs, over the next year or two. There are also new fora for water companies to engage with the investment community. For instance, the recently launched Sydney Cleantech Network now provides water companies with direct access to the financial hub of Sydney.

Australia's competitive advantage of a lack of water provides the perfect foundation for good investments in the water technologies that have developed from necessity. Historically, however, there have been water, water companies everywhere, but not a drop to invest. This appears about to change and those investors who get in early are likely to secure the best value.

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