

# ACT Australian CleanTech Index

1H FY11

## Quarterly Performance Report

January 2011

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## 1. ACT Australian CleanTech Index Overview

The ACT Australian CleanTech Index provides the definitive measure of the performance of Australian listed cleantech stocks.

The cleantech industry is split into a number of sub-sectors as detailed in the table below. Each of the sub-sectors contains companies that have both environmental and economic benefits.

Solar Thermal and Photovoltaics	Waste Management & Recycling
Wind Generation	Energy Efficiency, Green Buildings & Biomaterials
Biofuels	Energy Storage & Fuel Cells
Water	Wave, Tidal & Hydro
Environmental Services	Biogas
Low Emissions Vehicle Technologies	Geothermal – Hot dry rocks and conventional
Carbon Trading	

The cleantech sector is fundamentally different to Socially Responsible Investments (SRI) or Environmental, Social and Governance (ESG) performance. SRI and ESG look at incremental improvements in company performance and can be seen as ‘operational hygiene’ measures that find the best in class. Cleantech focuses on companies whose output positively enhances the communities and ecologies in which they reside. It is about doing ‘more good’ rather than ‘less bad’.

With over 75 companies falling under the coverage of the Index and with a combined market capitalisation of over \$10Bn, the ACT Australian CleanTech Index presents for the first time a picture of the Australian cleantech industry’s growth in a single measure.

The Index is weighted by market capitalisation and is benchmarked against both the S&P/ASX200 and the S&P/ASX Small Ordinaries. The rules for the formulation and management of the Index have been developed with reference to global best practice. An overview of these rules is provided in the annual performance report.



The ACT Australian Cleantech Index is updated each month and published on the Australian CleanTech website at [www.auscleantech.com.au](http://www.auscleantech.com.au), in the Ethical Investor magazine, in WME's Environmental Management News and in the international Cleantech Investor publication.

Monthly results can be emailed directly to interested parties by subscribing at <http://www.auscleantech.com.au/Pages/cleantech.html>.

## 2. ACT Australian CleanTech Index Performance 1H FY11

ACT Australian CleanTech Index outperformed both the S&P ASX200 and the S&P ASX Small Ordinaries for the month of December 2010. The Index has made a good recovery over the first half of the fiscal year although is still a long way behind its benchmarks on the longer term views.

The ACT Australian CleanTech Index rose from 54.7 to 60.6 over the month of December recording a strong 10.8% gain. This compared to the S&P ASX200 gain of 3.7% and the S&P ASX Small Ordinaries Index gain of 7.0%.

Over the second quarter of the 2011 fiscal year, the ACT Australian CleanTech Index recorded a gain of 8.7%%, better than the 3.1% gain by the S&P ASX200 and short of the 9.9% gain by the S&P ASX Small Ordinaries.

Over the first half of the 2011 fiscal year, the ACT Australian CleanTech Index recorded a gain of 21.1%, compared with the 10.2% gain by the S&P ASX200 and the 27.3% gain by the S&P ASX Small Ordinaries.

Percentage Change	FY07	FY08	FY09	FY10	DEC'10	2Q FY11	1H FY10	12 Mnths	3Yrs
<b>ACT Australian CleanTech Index</b>	42.9%	-16.0%	-38.7%	-32.0%	<b>10.8%</b>	<b>8.7%</b>	<b>21.1%</b>	-13.4%	-55.0%
<b>S&amp;P/ASX200</b>	25.4%	-16.4%	-25.8%	11.8%	<b>3.7%</b>	<b>3.1%</b>	<b>10.2%</b>	-0.9%	-24.4%
<b>S&amp;P/ASX Small Ords</b>	40.4%	-23.0%	-32.4%	10.5%	<b>7.0%</b>	<b>9.9%</b>	<b>27.3%</b>	11.0%	-24.5%

The market capitalisation of the 80 stocks in the ACT Australian CleanTech Index is A\$11.7 billion, after its rebalance, falling from its peak of \$16.3 billion in July 2007.

The month's performance was driven by strong performances by the Crane Group, Transpacific Industries, Sims Metal Management, Orocobre, Carnegie Wave Energy, Pacific Energy and Wasabi Energy. These gains were partially offset by falls in Sylex Systems, Stericorp, Geodynamics and Petrathern.

The equal best performers of 2Q FY11 were Wasabi Energy and Electrometals, both of whose share price gained 100%. Other good performers, all of which had gains in excess of 50% were Enviromission, Australian Renewable Fuels, Agri Energy, Jatoil, Hydrotech International, Orocobre, Enerji Ltd and Panax Geothermal.

Those that performed poorly with losses of greater than 30% over the quarter were Island Sky, CleanTeQ, Papyrus Australia, BluGlass Ltd, Vmoto, Geothermal Resources and Carbon Conscious.

The best performer of 1H FY11 was Aeris Environmental Ltd, whose share price gained 283%. Other good performers, all of which had gains in excess of 75%, were Enviromission, Australian Renewable Fuels, Jatoil, Hydrotech International, Orocobre and Wasabi Energy.

Those that performed poorly with losses of greater than 50% over the first half of the year were Viridis Clean Energy, Island Sky, CleanTeQ and Vmoto.

### **Index Rebalance**

The ACT Australian CleanTech Index underwent its quarterly rebalancing at the end of December which took account of recent share issues and other corporate activity.

The changes that were made to the index constituents at this rebalancing were:

- The addition of the **Water Resources Group Ltd (ASX:WRG)** following its listing on 30 December 2010. The Water Resources Group is a water company that owns specific water treatment technologies and rights to ozone generation technology immediately applicable to water treatment. The Company's initial product is its Advanced Seawater Reverse Osmosis ("ASWRO") Desalination Plant incorporating the Company's breakthrough technology, the Plasma Chemical Reactor ("PCR") that produces ozone

from ambient air for pre-treatment of water in place of chlorine. WRG will also be included in the ACT Water Index.

- The addition of **Redflow Ltd (ASX:RFX)** following its listing on 14 December 2010. RedFlow develops and sells advanced energy storage systems into the rapidly growing electricity utility and renewable energy markets. RedFlow is a specialist developer and manufacturer of next generation zinc bromine battery electricity storage systems. RFX will also be included in the ACT Energy Storage Index.
- The addition of **Carbon Polymers Ltd (ASX:CBP)** following a review of its operations. Carbon Polymers is a recycling company that owns a state of the art recycling facility in Sydney. CBP has several lines of business, independently operating, but jointly producing advanced polymers: the company's tyre collection, plastic recycling and composite polymer extrusion businesses have the ability to change the way plastics are used and recycled. CBP will also be included in the ACT Waste Index.
- The addition of **Earth Heat Resources Ltd (ASX:EHR)** following its name change from Fall River Resources Ltd and its change of focus into international geothermal operations. The portfolio of the Company mainly comprises approximately 180MW of operated geothermal developments worldwide, with its cornerstone assets in Djibouti and in Argentina. In Djibouti, the Company has entered into a JV with the Djibouti Ministry of Energy and Natural Resources and Electricite de Djibouti in relation to the Fiale Geothermal Development Project, a major geothermal resource in the Rift Valley in Africa. The Project involves the staged development of a 150MW capacity project over the next several years. Argentina is home to the 30MW Copahue Geothermal Project, in which the Company has entered into a JV with a Private Canadian entity, which provides for earning up to 87.5% of the project. A key element of the Copahue Project is that it has previously had a small scale geothermal pilot plant installed and operating, supplying a small nearby town in the 1990's. As a result,

significant infrastructure is already in place at the site. EHR will also be included in the ACT Geothermal Index.

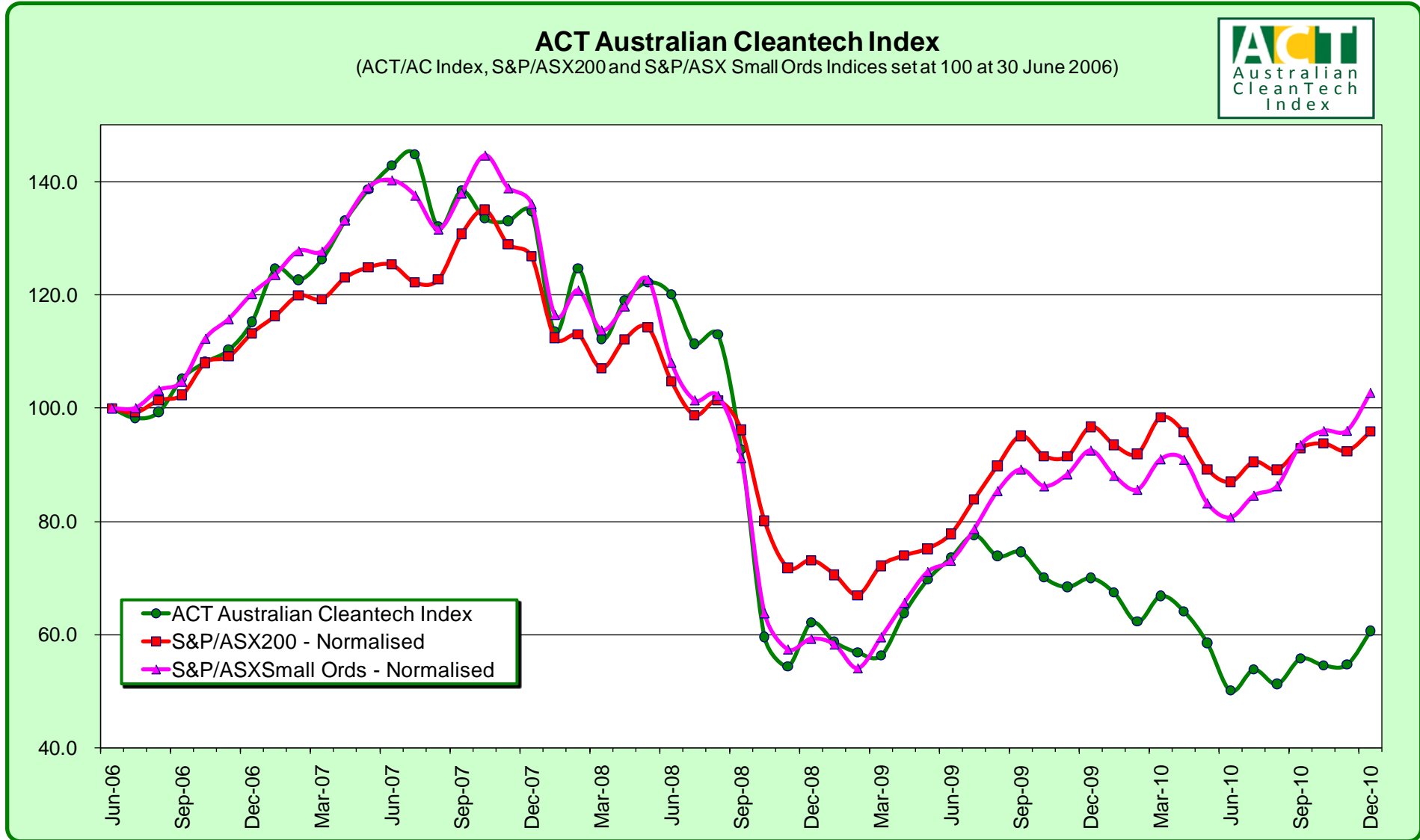
A watching brief is being maintained on the following companies in the Index:

- **Viridis Clean Energy Group (ASX:VIR)** which is currently in the process of selling its US landfill gas assets and is reviewing a recapitalisation event.
- **Green Invest (ASX:GNV)** is no longer suspended from trading and has formed a JV between its NextGen trading business and the Macquarie Bank owned Envex.
- **Agri Energy Ltd (ASX:AAE)** following its announced acquisition of oil and gas interests in Syria, which are currently due for completion in February or March 2011.
- **Crane Group (ASX:CRG)** following its rejection on 20 December 2010 of the takeover offer from New Zealand's Fletcher Building Ltd. Fletcher Building has since issued a bidder's statement to CRG shareholders as it proceeds with a hostile takeover.
- **JatOil Ltd (ASX:JAT)** following its announced acquisition of coal assets in Kalimantan in Indonesia, which are currently due for completion in February 2011. At the same time, the company has expanded its Jatropha operations. A careful watch will be maintained on the source of the majority of the company's revenue.
- **Wilmott Forests Ltd (ASX:WFL)** which remains in administration.
- **Solverdi WordWide Limited (ASX:SWW)** which remains in administration.
- **CMA Corporation Limited (ASX:CMV)** which remains in voluntary suspension from trading whilst it restructures its operations.



In addition, a watching brief is being maintained on the following companies that may be included in the Index at some point in the future:

- **Algae.Tec (ASX:AEB)**, an algae biofuels company that completed its A\$7.5m underwritten IPO and is due to list on the ASX in early January 2011.
- **m2m Ltd (ASX:MCL)** that is expanding its carbon sink operations but still currently generates the majority of its revenue from other investments.
- **Greenlink Energy (ASX:GEL)**, a cleantech investment company that is seeking an IPO although now appears to be delayed from the company's original plans.
- **WAG Ltd (ASX:WAG)**, a media company that is in the process of acquiring a biochar company, Pacific Pyrolysis.



### 3. Component Sub-Indices

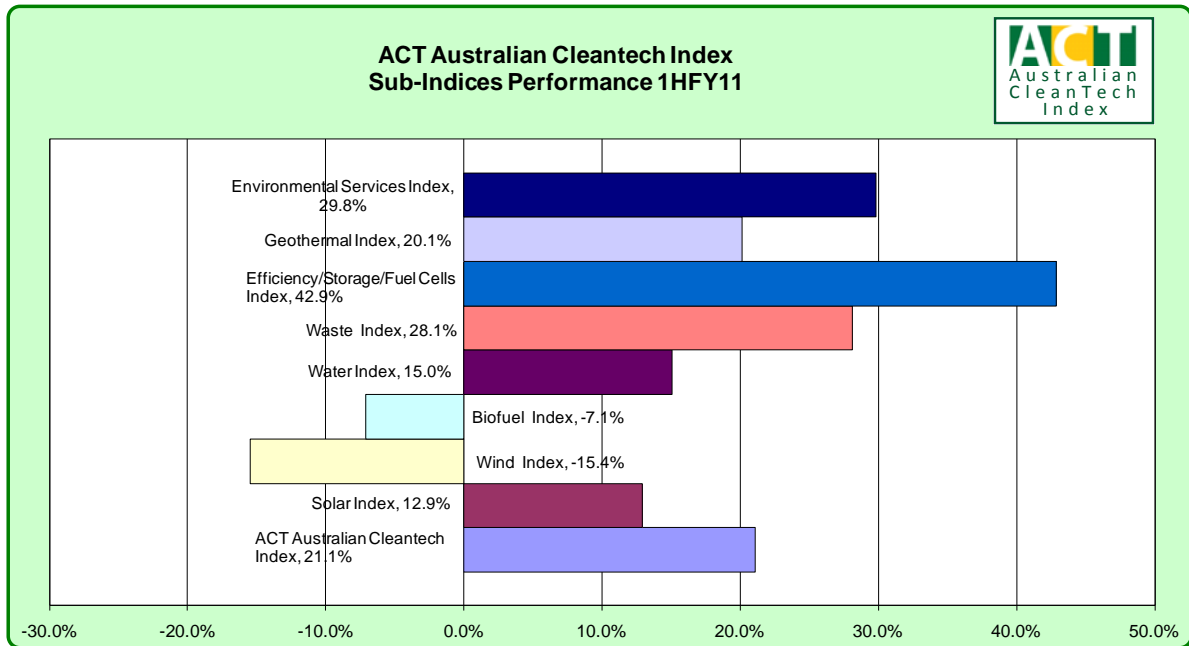
To provide an analysis of the ACT Australian CleanTech Index, eight sub-indices have been developed. The performance of each of these sub-indices over the last three financial years and during 1H FY11 is shown in the table and charts below.

The stand-out sectors for the six months to December 2010 were the catch-all ACT Efficiency/Buildings/Biomaterials/Energy Storage/Fuel Cells Index, driven by strong performance by Orocobre and Galaxy Resources, the ACT Environmental Services Index, driven by Aeris Environmental and Coffey Environments, and the ACT Waste Index driven by strong performances by Sims Metal Management and Transpacific Industries.

The worst performer was the ACT Wind Index, driven by poor performances by both Viridis Clean Energy Group and Infigen Energy.

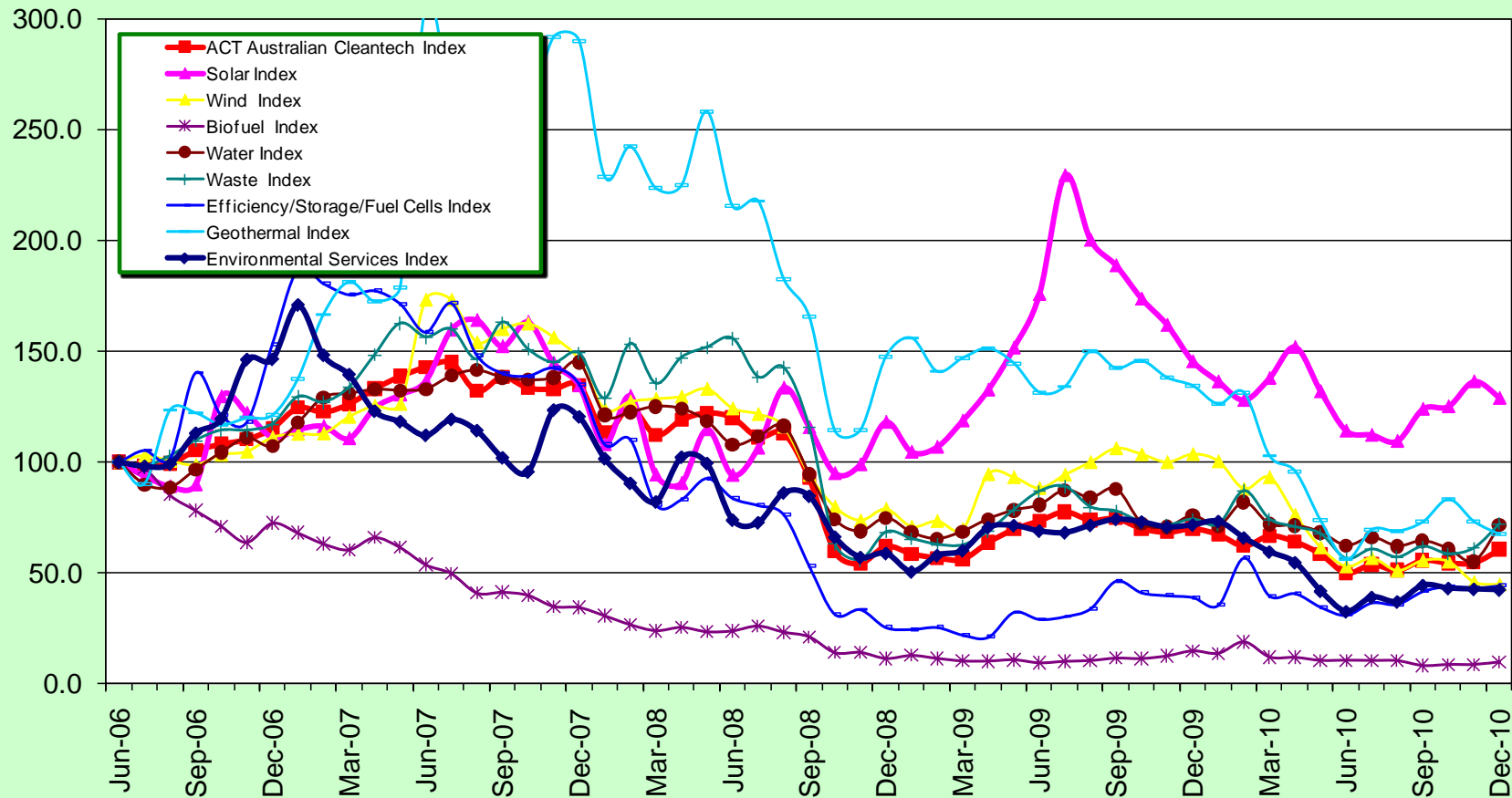
**ACT Australian CleanTech Sub-Indices**

	FY07	FY08	FY09	FY10	1H FY11
<b>ACT Solar Index</b>	36.5%	-31.1%	86.7%	-35.1%	12.9%
<b>ACT Wind Index</b>	73.3%	-28.3%	-29.0%	-40.1%	-15.4%
<b>ACT Biofuel Index</b>	-46.2%	-55.5%	-60.4%	12.8%	-7.1%
<b>ACT Water Index</b>	32.9%	-18.9%	-25.2%	-22.8%	15.0%
<b>ACT Waste Index</b>	56.3%	-0.4%	-44.3%	-35.0%	28.1%
<b>ACT Efficiency/Green Buildings/Biomaterials/ Energy Storage/Fuel Cells Index</b>	58.5%	-47.1%	-65.1%	6.2%	42.9%
<b>ACT Geothermal Index</b>	205.9%	-29.6%	-38.9%	-57.3%	20.1%
<b>ACT Environmental Services Index</b>	12.1%	-34.1%	-6.7%	-52.6%	29.8%



## ACT Australian Cleantech Index Sub-Indices Chart

(ACT/AC Index and all ACT Cleantech Sub-Indices set at 100 at 30 June 2006)



#### 4. Component Companies on 31 December 2010

The largest 20 largest Index constituents by market capitalisation on 31 December 2010 are provided in the Table below.

Market Cap Ranking	Company
1	Sims Metal Management
2	Transpacific Industries
3	Sylex Systems
4	Crane Group
5	Energy Developments
6	Infigen Energy
7	Orocobre
8	Galaxy Resources
9	Transfield Services Infrastructure Fund
10	Ceramic Fuel Cells
11	Tox Free Solutions
12	Nanosonics
13	Coffey Environments
14	Geodynamics
15	Pacific Energy
16	Dyesol
17	Carnegie Wave Energy
18	Novarise Renewable Resources
19	CMA Corporation
20	Quantum Energy

For a full listing of all companies included in the ACT Australian CleanTech Index, please email your request to [index@auscleantech.com.au](mailto:index@auscleantech.com.au).