

# ACT Australian CleanTech Index

**2009-10**

## Annual Performance Report

July 2010

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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 nearly \$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 section 5 of this 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 magazine.

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 2009-10

ACT Australian CleanTech Index significantly underperformed both the S&P ASX200 and the S&P Small Ordinaries for the month of June 2010, for the fourth quarter of the 2009 fiscal year and, most significantly, over the full fiscal year.

The ACT Australian CleanTech Index fell from 58.6 to 50.1 over the month of June recording a 14.5% loss. This compared to the S&P ASX200 loss of 11.6% and the S&P ASX Small Ordinaries Index loss of 11.3%.

Over the fourth quarter of the 2010 fiscal year, the ACT Australian CleanTech Index recorded a loss of 25.1%, compared with the 11.6% loss by the S&P ASX200 and the 11.3% loss by the S&P ASX Small Ordinaries.

Over the second half of the 2010 fiscal year, the ACT Australian CleanTech Index recorded a loss of 28.5% compared with the 10.1% loss by the S&P ASX200 and the 12.8% loss by the S&P ASX Small Ordinaries.

Over the 2010 fiscal year, the ACT Australian CleanTech Index recorded a loss of 32.0%, lagging behind the S&P ASX200's gain of 11.8% and the S&P ASX Small Ordinaries' gain of 10.5%.

Percentage Change	FY07	FY08	FY09	JUN'10	4Q10	2H10	FY10	3 Yr Returns
<b>ACT Australian CleanTech Index</b>	42.9%	-16.0%	-38.7%	-14.5%	-25.1%	-28.5%	-32.0%	-65.0%
<b>S&amp;P/ASX200</b>	25.4%	-16.4%	-25.8%	-2.5%	-11.6%	-10.1%	11.8%	-30.6%
<b>S&amp;P/ASX Small Ords</b>	40.4%	-23.0%	-32.4%	-3.0%	-11.3%	-12.8%	10.5%	-42.5%

The market capitalisation of the 78 stocks in the ACT Australian CleanTech Index is just under A\$10.0 billion.

The month's performance was driven by weak results from Sims Metal Management, Infigen Energy, the Crane Group, Transpacific Industries, Orocobre

and Coffey Environments. The only noteworthy positive result for the month was for BluGlass Ltd.

The best performers of 4Q FY10 in terms of share price were Overseas & General Ltd (+80%) and Pacific Enviromin (+36%), although both of these stocks have now been removed from the index for changing their focus away from cleantech (maybe partially the reason for their good performance!)

Those that performed poorly with share price losses of **greater than 50%** over the quarter were Advanced Energy Systems, Viridis Clean Energy Group, Island Sky, Intec Ltd, Geodynamics, Torrens Energy, Coffey Environments and Sub Soil Technologies.

The best performer of 2H FY10 (excluding those being removed from the Index) was CMA Corp, whose share price gained 38.1%. Other good performers were Dyesol Ltd, Pro-Pac Packaging and Gale Pacific.

Those that performed poorly with losses of **greater than 50%** over the second half of the year were EnviroMission, Viridis Clean Energy Group, WHL Energy, Agri Energy, Sterling Biofuels, Genesis R&D, Island Sky, Intec Ltd, Orbital Corp, the majority of the listed geothermal sector, Carbon Conscious, Coffey Environments, BioProspect and Sub Soil Technologies.

The best performers of FY10 (excluding those being removed from the Index) were Gale Pacific (+162.3%), EcoQuest (+97.8%) and Pro-Pac Packaging (+93.9%). Other good performers with gains of **over 30%** were Advanced Energy Systems, Mission NewEnergy, Tox Free Solutions, Dolomatrix, Stericorp and CBD Energy.

Those that performed poorly with losses of **greater than 50%** over FY10 were Quantum Energy, Viridis Clean Energy Group, Agri Energy, Stirling Biofuels, Hydrotech International, Island Sky, Intec Ltd, Skydome Holdings, Carnegie Wave Energy, Orbital Corp, most of the geothermal sector, Carbon Conscious, Coffey Environments, Pacific Environment, Aeris Technologies and Sub Soil Technologies.

## Index Rebalance

The ACT Australian CleanTech Index underwent its quarterly rebalancing at the end of June 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 removal of **Pacific Enviromin Ltd (ASX:PEV)** due to its reduced focus on the company's bentonite operations and an increased focus coal exploration tenements.
- the removal of **JackGreen Ltd (ASX:JGL)** due to the approval of the Deed of Arrangement with Greenbox Group on 29 June, which will lead to the winding up of the company.
- the removal of **Overseas & General Ltd (ASX:OGL)** due to its change of focus away from biofuels.
- the removal of **Natural Fuels Ltd Ltd (ASX:NFL)** due to the disposal of its biofuels assts.
- the additional of **Novarise Renewable Resources Ltd (ASX:NOE)**, which is China's largest recycler of polypropylene (PP) and listed on the ASX in April 2010. The company uses a proprietary process that produces PP products of the same quality as using virgin PP and at a price discount of 20%. Novarise will also be included in the Waste Sub-Index.
- the addition of **Nanosonics Ltd (ASX:NAN)**, which is a technology driven company that is commercialising innovative and unique customer focused disinfection solutions using ultrasonics. The company's unique disinfection and sterilisation technologies provide the ability to produce safe, non-toxic, fast and environmentally friendly solutions that are able to kill the most resilient microorganisms. Nanosonics will also be included in the Efficiency, Storage, Fuel Cell Sub-Index.



- the addition of **Cardia Bioplastics Ltd (ASX:CNN)**, which is a global developer, manufacturer and marketer of sustainable resins derived from renewable resources. The company's Biohybrid and compostable resins deliver packaging and plastics products with a lower carbon footprint. Cardia Bioplastics will also be included in the Efficiency, Storage, Fuel Cell Sub-Index.
- the addition of **Vmoto Ltd (ASX:VMT)**, which is a global integrated electric scooter manufacturing and distribution group. Vmoto specialises in high quality motor scooters and All Terrain Vehicles (ATV's) using state-of-the-art production facilities situated in China. Vmoto also operates an international scooter and ATV trading and distribution business in Shanghai China and a sales, distribution and design centre based in Barcelona Spain.

A watching brief is being maintained on the following companies that are currently included in the Index:

- **CMA Corp (ASX:CMV)** was suspended from trading on 19 February 2010.
- **Solverdi Worldwide Ltd (ASX:SWW)** was suspended from official quotation on 18 March 2010 and is in administration.
- **Wilmott Forests Ltd (ASX:WFL)** was suspended from trading on 5 July 2010.

In addition, a watching brief is being maintained on the following companies that may qualify for inclusion in the Index in the future:

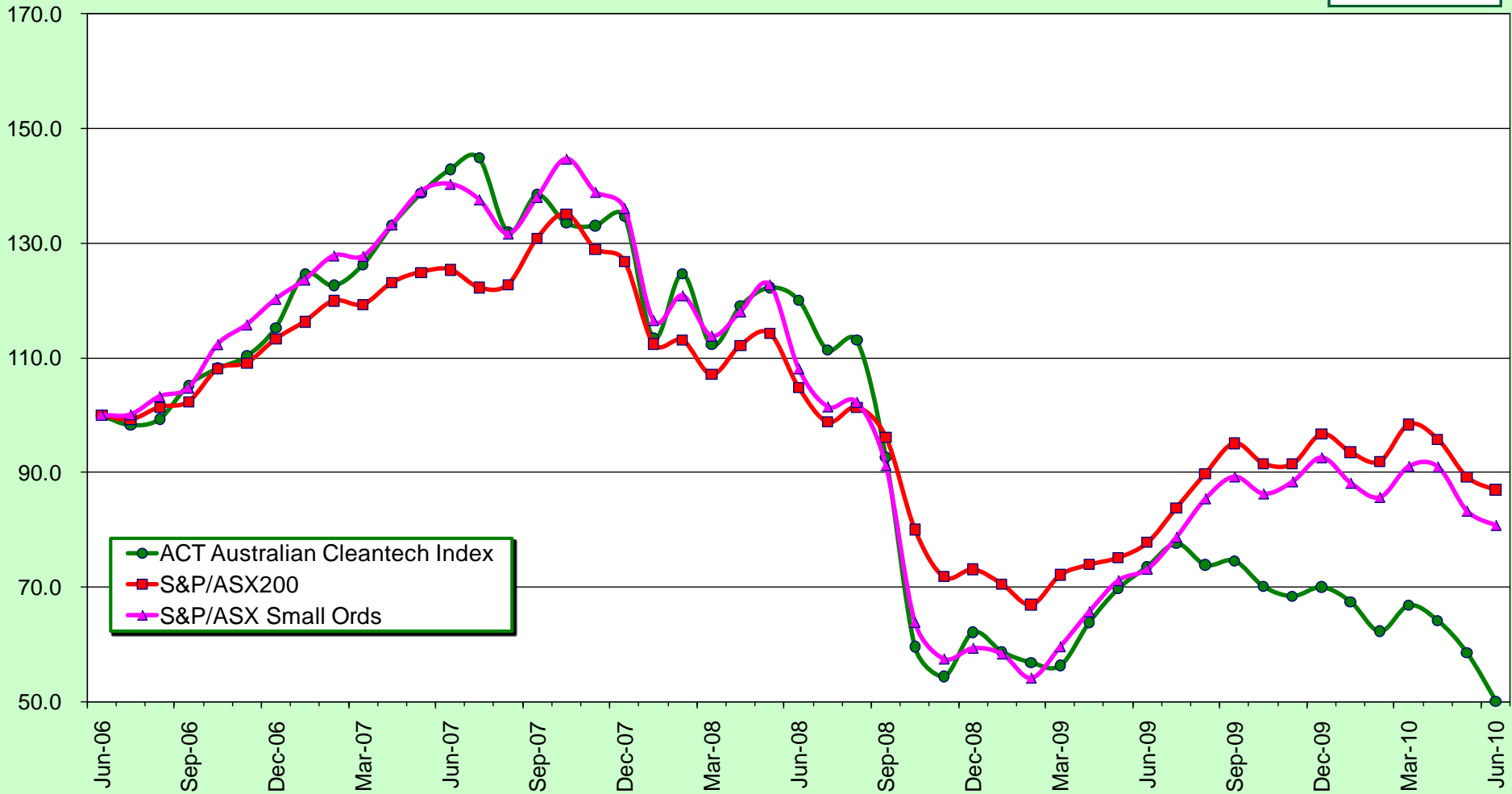
- **Enerji Ltd (ASX:ERJ)** has an option to acquire Cogen Orc and is planning to build a business around financing of micro-cogeneration facilities.



- **m2m Corporation Ltd (ASX:MCL)** has commenced a carbon business and is in negotiations to buy Carbon Planet. The company is focussing on creating REDD credits in South East Asia.
- **Algae Tec Ltd (ASX:AEB)** which is seeking to list on the ASX through a \$7.5m IPO with the aim of commercialising an algae biofuels technology.

### ACT Australian Cleantech Index

(ACT/AC Index, S&P/ASX200 and S&P/ASX Small Ords Indices set at 100 at 30 June 2006)



### 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 is shown in the table below.

**ACT Australian CleanTech Sub-Indices**

	FY07	FY08	FY09	4Q10	1H10	FY10
<b>ACT Solar Index</b>	36.5%	-31.1%	86.7%	-17.2%	-21.5%	-35.1%
<b>ACT Wind Index</b>	73.3%	-28.3%	-29.0%	-43.3%	-49.0%	-40.1%
<b>ACT Biofuel Index</b>	-46.2%	-55.5%	-60.4%	-11.8%	-28.4%	12.8%
<b>ACT Water Index</b>	32.9%	-18.9%	-25.2%	-13.4%	-17.9%	-22.8%
<b>ACT Waste Index</b>	56.3%	-0.4%	-44.3%	-24.0%	-24.0%	-35.0%
<b>ACT Efficiency/Green Buildings/Biomaterials/Energy Storage/Fuel Cells Index</b>	58.5%	-47.1%	-65.1%	-21.9%	-20.6%	6.2%
<b>ACT Geothermal Index</b>	205.9%	-29.6%	-38.9%	-45.4%	-58.2%	-57.3%
<b>ACT Environmental Services Index</b>	12.1%	-34.1%	-6.7%	-45.2%	-54.5%	-52.6%

All of the sub-indices recorded significant losses over the fourth quarter of the 2009-10 fiscal year. Other than the ACT Biofuels Index and the combined Efficiency Index, these gains were also reflected in full year losses.

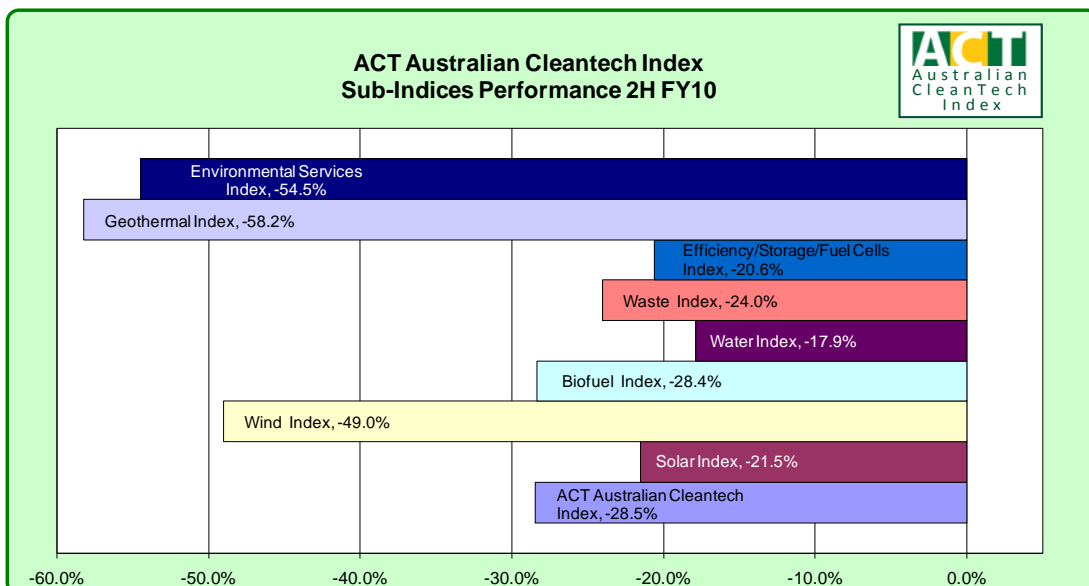
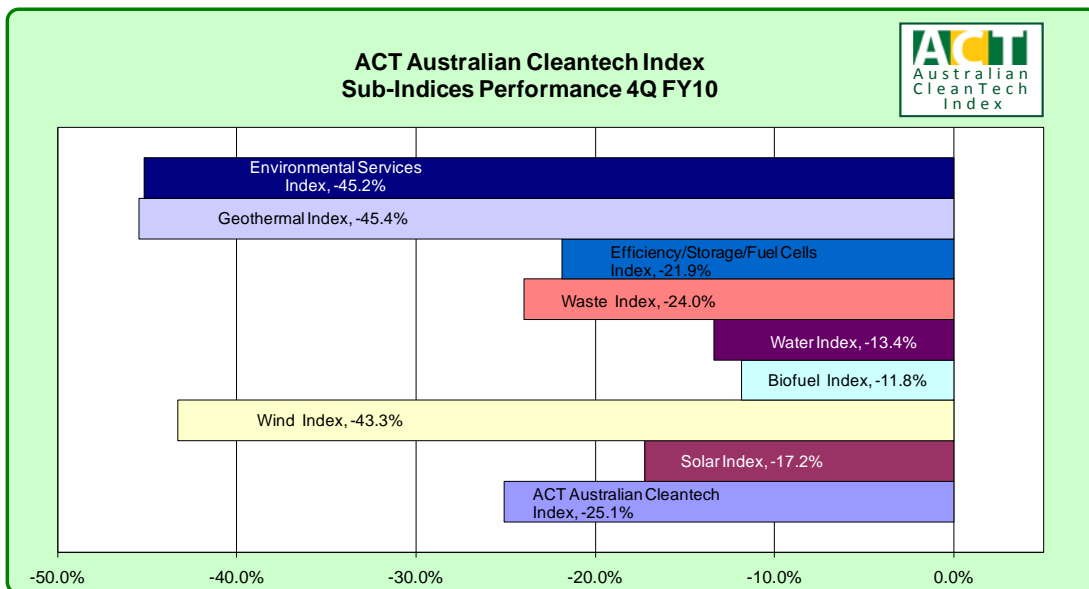
The overall collapse of the ACT Australian Cleantech Index has not been driven by the decline of only a few sub-sectors. It is clear from these numbers that there have been across the board losses, with a few minor exceptions.

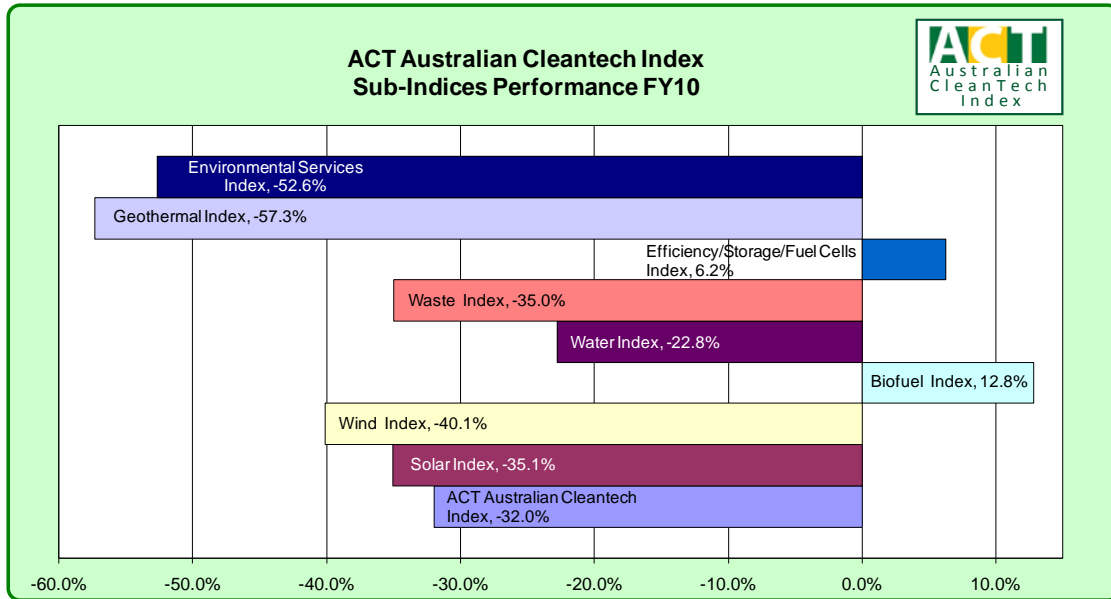
This collapse may be being caused by a number of key issues:

- Ongoing financial crisis fall out to the Australian sector that hits smaller and non-revenue earning companies harder than the general market;

- Removal of emissions trading from the Federal Government’s near term agenda;
- A general community move away from environmental issues and climate change as a significant issue with greater emphasis being placed on mining, taxes and healthcare; and
- Lack of any clear political signals that there is any intention of moving towards a more sustainable economy.

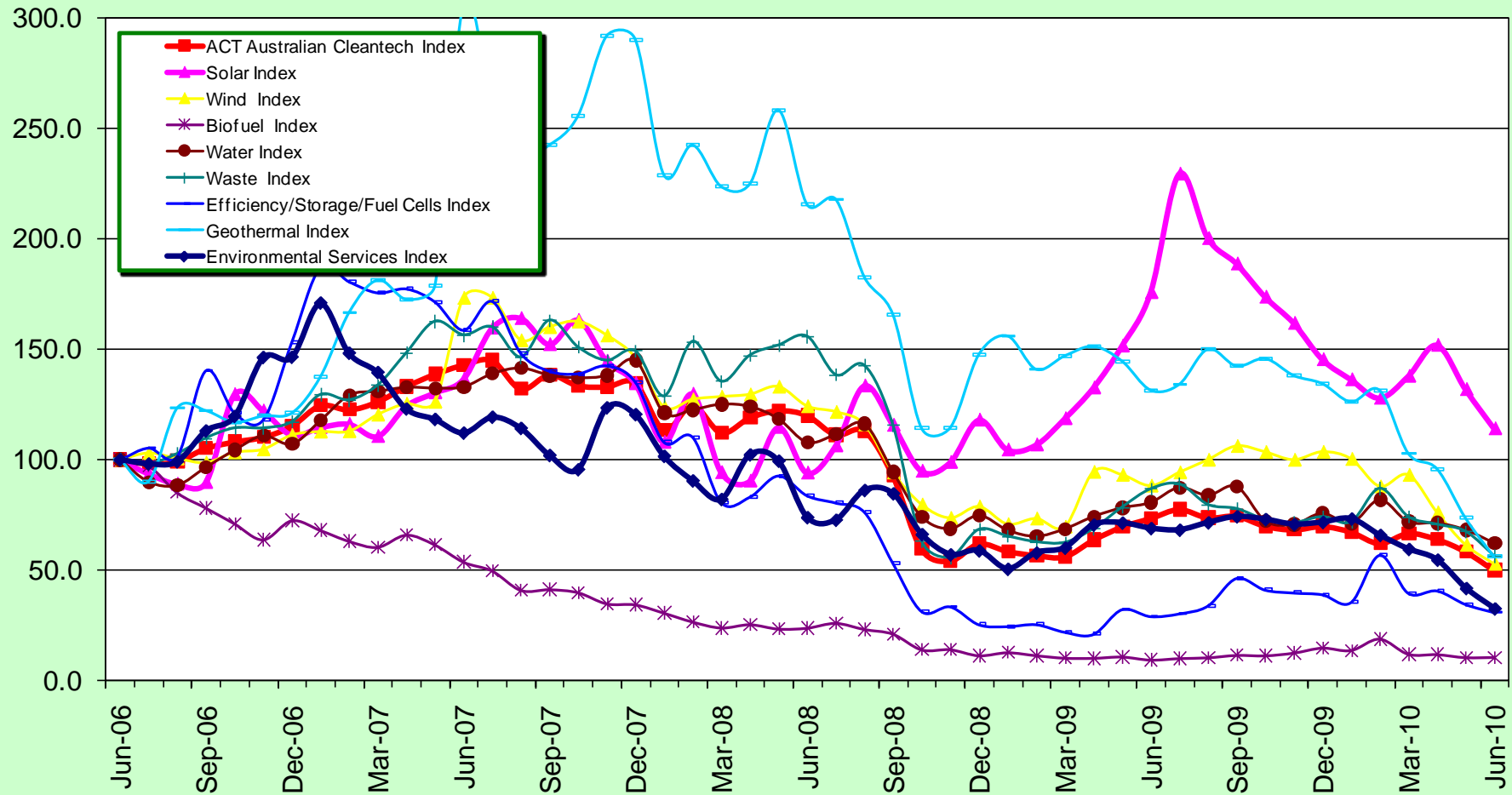
The 4Q10, 2H10 and the FY10 results are shown graphically on the bar charts below.





## 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 30 June 2010

The largest 20 largest Index constituents by market capitalisation on 30 June 2009 are provided in the Table below.

Market Cap Ranking	Company	ASX Code
1	Sims Metal Management Ltd	SGM
2	Transpacific Industries	TPI
3	Sylex Systems	SLX
4	Crane Group	CRG
5	Infigen Energy	IFN
6	Energy Developments	ENE
7	Transfield Services Infrastructure Fund	TSI
8	Tox Free Solutions	TOX
9	Galaxy Resources	GXY
10	Orocobre	ORE
11	Dyesol	DYE
12	Ceramic Fuel Cells	CFU
13	Nanosonics	NAN
14	Coffey Environments	COF
15	Novarise Renewable Resources Ltd	NOE
16	Geodynamics	GDY
17	CMA Corp	CMV
18	Quantum Energy	QTM
19	Mission NewEnergy	MBT
20	Vmoto	VMT

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).



## 5. Overview of Index Rules

### Criteria for Inclusion

To be included in the ACT Australian CleanTech Index, a company must be listed on an Australian based stock exchange and have the majority of the current or future revenues generated from an approved cleantech activity. Australian companies listed only on overseas exchanges are excluded as are companies that have some cleantech activities but the majority of their revenue is generated from non-cleantech activities. International companies listed in Australia, even where there are minimal Australian operations, are included in the Index.

### Closing Prices

The ACT Australian CleanTech Index and the eight sub-indices are calculated based on the closing prices on the last day of trading of each calendar month. The Index values are the result of calculating the total market capitalisation of the companies included in the index and normalising this value in comparison to the total market capitalisation at the starting point of the Index. The value of each index was set to equal 100 on 30 June 2006.

### Number of Shares

The number of shares used in the calculation of the market capitalisation of each company is based the total number of Ordinary Shares, including those that are held in escrow and are temporarily unlisted. Shares that are not included in the calculation include listed and unlisted Options, Preference Shares, Warrants and Convertible Notes.

During share buy-back schemes, shares are only removed from the index once they have been cancelled by the company. Shares issued as part of Rights issues are

only included in total shares if formally announced by the company as having been taken up.

### **Rebalancing**

The Indices are all rebalanced at the end of each quarter to take account of any changes to the capital structures of the component companies and to add or remove companies to the Index as required. Companies may be added if they have been listed during the previous quarter or have changed their operation such that the majority of their current or future revenue is derived from an approved cleantech activity. Conversely, companies may be removed from the Index if they have been delisted or their activities have changed such that the majority of their current or future revenue will not be sourced from an approved cleantech activity. If a company's shares are suspended from trading, the company remains in the index at rebalancing until such time as it is delisted.

The Index is calculated both prior to and after the rebalancing. The normalising factor is then adjusted to ensure that Index value is unchanged due to the act of rebalancing.

### **Exclusions**

The ACT Australian CleanTech Index excludes some sub-sectors that are included in some other global clean energy and cleantech measures. The reason behind this is to keep the Index focussed on 'pure' cleantech companies that will form part of long term sustainable solutions. The following sub-sectors are excluded from the Index:

#### **'Clean' Fossil Fuels**

Natural gas, coal seam methane, underground coal gasification, gas to liquids, carbon capture and storage and clean coal technologies are each sometimes

included in indices and funds focussed on clean energy. All of these are excluded from the ACT Australian CleanTech Index because, whilst they have lower emissions profiles than other fossil fuel energy sources, they are all still reliant on fossil fuels and are therefore at best only a transition resource or technology.

### **Nuclear and Uranium**

Whilst the emissions profile of the nuclear industry means that it is likely to form part of the long term global solution to climate change, there are still significant parts of the Australian community that have concerns over the environmental impacts of uranium transport, usage and waste storage.

To prevent this discussion becoming a distraction to the performance of the ACT Australian CleanTech Index, this sub-sector is currently excluded.

### **Agri-Business**

Agri-businesses are included in many measures of environmental performance due to their clear interaction with the environment. Whilst the ACT Australian CleanTech Index will include companies that provide products and services to improve agriculture's impact on the environment through, for instance, the use of water and energy saving technologies, it will not include the businesses that merely purchase these technologies.