



# Australian CleanTech Index

**2013-14**

## Annual Performance Report

**July 2014**

To request further information or to be added to the distribution list for future ACT Australian CleanTech Index reports, please see [www.auscleantech.com.au/Pages/cleantech.html](http://www.auscleantech.com.au/Pages/cleantech.html)

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## 1. Australian CleanTech Index Overview

The 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 & Biomaterials
Biofuels	Green Buildings
Water	Energy Storage & Fuel Cells
Environmental Services	Wave, Tidal & Hydro
Low Emissions Vehicle Technologies	Biogas
Carbon Trading	Geothermal – Hot dry rocks and conventional

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 65 companies falling under the coverage of the Index and with a combined market capitalisation, after its rebalance, of over \$14Bn, the 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 this annual performance report.



The 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, on the Clean Energy Council website 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. Australian CleanTech Index Performance 2013-14

The Australian CleanTech Index outperformed the S&P ASX200 and the S&P ASX Small Ordinaries for the month of June 2014 and for the full 2013-14 financial year with mixed results for the fourth quarter and second half of the year.

The Australian CleanTech Index fell from 37.2 to 37.0 over the month of June recording a 0.4% loss. This compared to the S&P ASX200 loss of 1.8% and the S&P ASX Small Ordinaries Index loss of 1.4%. The Australian CleanTech 20 recorded a loss of 0.2% for the month.

Over the fourth quarter of the 2014 fiscal year, the Australian CleanTech Index recorded a loss of 2.3% compared to the S&P ASX200's no change and the S&P ASX Small Ordinaries' 2.7% loss.

Over the second half of the 2014 fiscal year, the Australian CleanTech Index recorded a loss of 7.2% compared with the 0.8% gain by the S&P ASX200 and the 2.8% loss by the S&P ASX Small Ordinaries.

Finally, over the full 2014 fiscal year, the Australian CleanTech Index recorded a strong gain of 19.6%, well ahead of the S&P ASX200's gain of 12.3% and the S&P ASX Small Ordinaries' gain of 9.6%.

Percentage Change	FY12	FY13	JUN'14	4Q FY14	2H FY14	FY14	3Yrs
<b>ACT Australian CleanTech Index</b>	<b>-30.3%</b>	<b>-3.5%</b>	<b>-0.4%</b>	<b>-2.3%</b>	<b>-7.2%</b>	<b>19.6%</b>	<b>-19.5%</b>
<b>Australian CleanTech 20</b>	<b>-29.2%</b>	<b>-2.0%</b>	<b>-0.2%</b>	<b>-1.8%</b>	<b>-7.1%</b>	<b>19.6%</b>	<b>-16.9%</b>
<b>S&amp;P/ASX200</b>	<b>-9.6%</b>	<b>17.3%</b>	<b>-1.8%</b>	<b>0.0%</b>	<b>0.8%</b>	<b>12.3%</b>	<b>19.1%</b>
<b>S&amp;P/ASX Small Ords</b>	<b>-15.0%</b>	<b>-8.3%</b>	<b>-1.4%</b>	<b>-2.7%</b>	<b>-2.8%</b>	<b>9.6%</b>	<b>-14.5%</b>

The market capitalisation of the 65 stocks in the Australian CleanTech Index is A\$14.6 billion, after its rebalance, falling from its peak of \$16.3 billion in July 2007 but a long way up from its trough of A\$6.2 billion in July 2012.

The largest falls in market capitalisation over the month were recorded by Transpacific Industries, Sylex Systems, Tox Free Solutions and Galaxy Resources with the greatest gains recorded by Meridian Energy, Mighty River Power, Infigen Energy and Reece Australia Holdings.

The best and worst performers in terms of share price performance over the previous year are shown in the table below.

Fourth Quarter FY14		
Worst Performers Share Price Loss > 30%		Best Performers Share Price Gain > 10%
Solco K2 Energy Limited Sylex Systems Actinogen Australian Renewable Fuels Sterling Biofuels Papyrus Australia	AnaeCo Cardia BioPlastics Ceramic Fuel Cells Geodynamics Greenearth Energy Environmental Group Soil Sub Technologies	Infigen Energy SWW Energy Limited Leaf Energy Novarise Renewable Resources Enerji RedFlow Hot Rock Carbon Conscious Pacific Environment Australian Ethical Investment
Second Half FY14		
Worst Performers Share Price Loss > 40%		Best Performers Share Price Gain > 30%
Solco K2 Energy Limited Sylex Systems Actinogen Australian Renewable Fuels Sterling Biofuels	Algae.Tec Water Resources Group Ceramic Fuel Cells Geodynamics Environmental Group	Quantum Energy Mission NewEnergy Sterihealth Limited Enerji RedFlow Vmoto Greenearth Energy
Full Year FY14		
Worst Performers Share Price Loss > 50%	Best Performers Share Price Gain > 50%	
Solco Water Resources Group CleanTeQ Galaxy Resources Ceramic Fuel Cells Petratherm Aeris Environmental	EnviroMission Quantum Energy SWW Energy Limited Australian Renewable Fuels Mission NewEnergy Enerji Orocobre	RedFlow Carnegie Wave Energy Vmoto Greenearth Energy Coffey Australian Ethical Investment Soil Sub 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:

### Additions to the Index

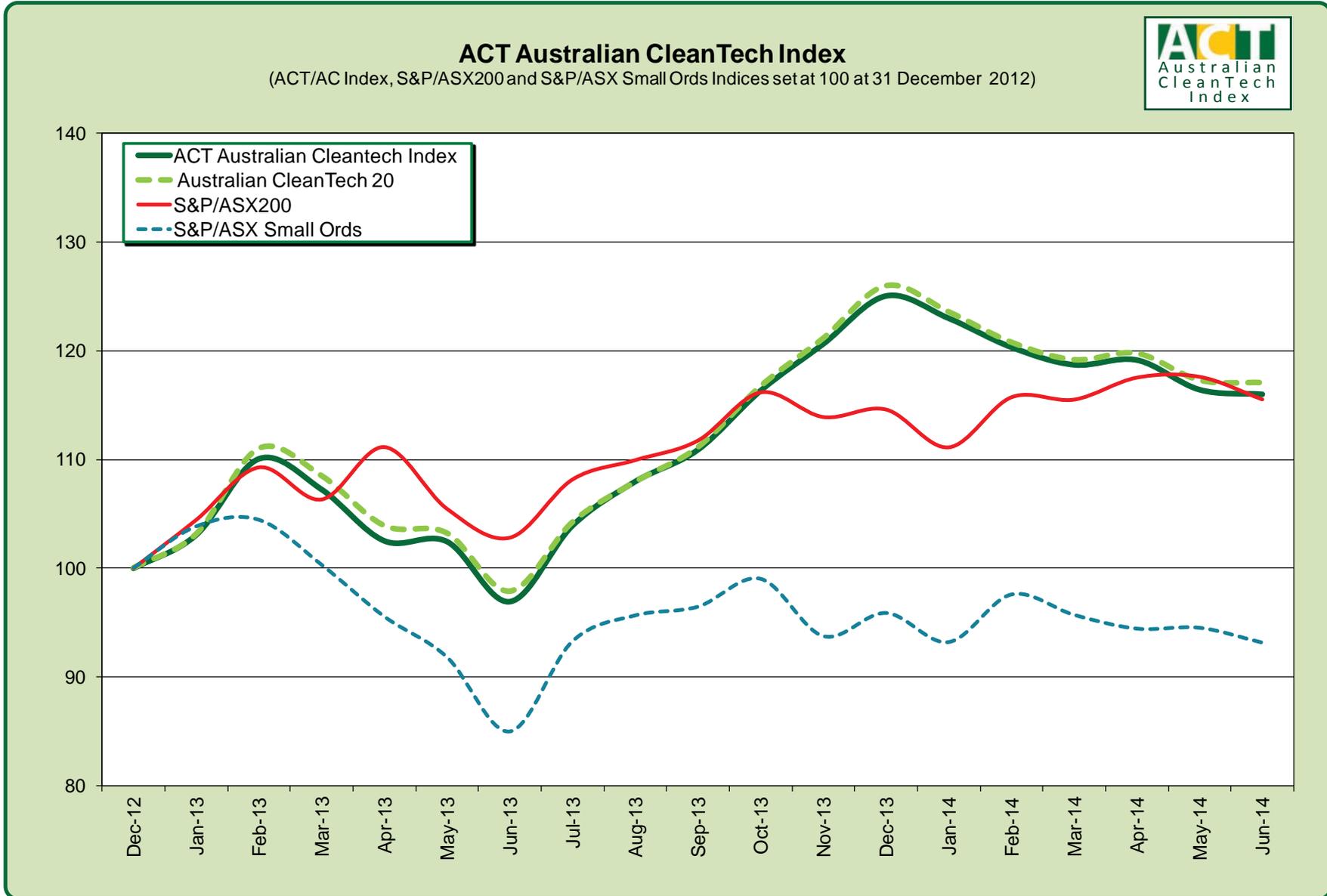
- **Beacon Lighting Corporation Ltd (ASX:BLX)** - Beacon Lighting completed a \$67m IPO in April 2014. Its shares jumped 60% in its first day of trade showing strong demand for the stock. Beacon Lighting is Australia's largest retailer of residential lighting and ceiling fans. The business has two revenue streams, as it has 71 company owned stores and a further 14 franchise stores. Its vision is to be the leading national and international provider of innovative, technologically advanced lighting solutions and energy efficient products that enhance its customers' environments.  
[www.beaconlightinggroup.com.au](http://www.beaconlightinggroup.com.au)

No companies were removed from the Index this quarter.

During the quarter the CO2 Group was renamed to the Commodities Group to better reflect its widening operations. After a review, these extended operations were still considered to have a majority of revenue generated from cleantech activities and so the company was retained in the index.

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

- **Petratherm Ltd (ASX:PTR)** following its award of Petroleum Exploration Licence (EL3/2013) covering approximately 3,900 km<sup>2</sup>, north of Hobart in central Tasmania to explore for shale oil and gas.
- **Novarise Renewable Resources International (ASX:NOE)** which continues to negotiate a privatisation proposal from its majority shareholder.
- **Wasabi Energy (ASX:WAS)** which is currently in administration and undergoing a major financial restructure.



### 3. Component Sub-Indices

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

The ACT Biofuels Index has been discontinued from 1 July 2014 due to the ongoing poor performance and reducing number of credible companies qualifying for inclusion.

The best performing sectors for the three months to June 2014 were ACT Water Index and the ACT Waste Index. The worst performer was the ACT Solar Index.

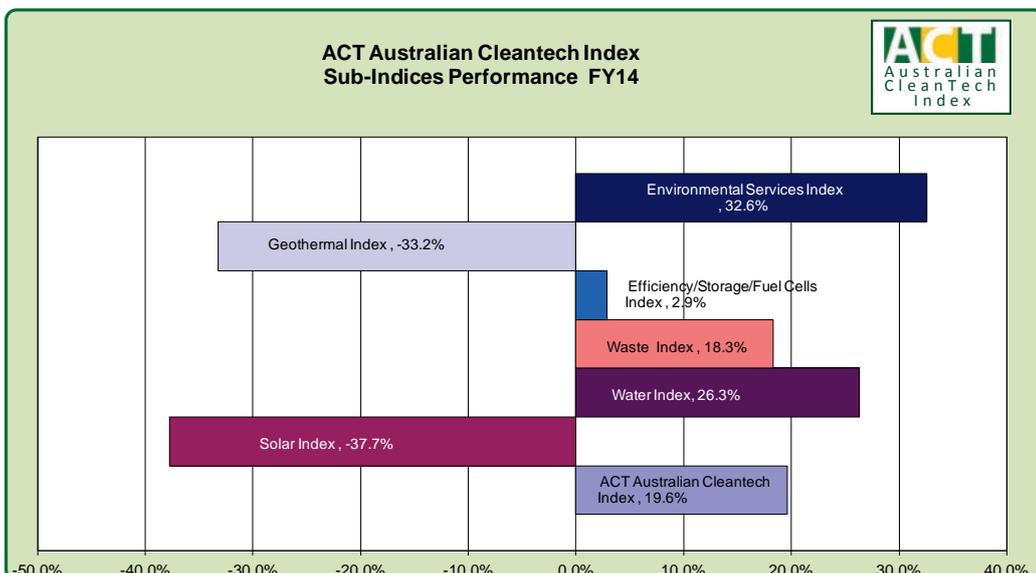
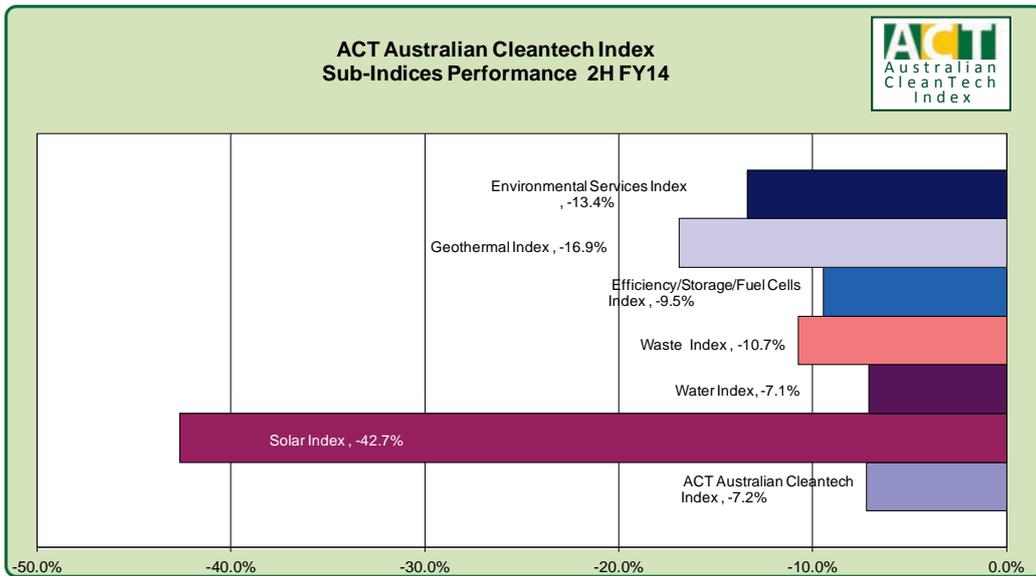
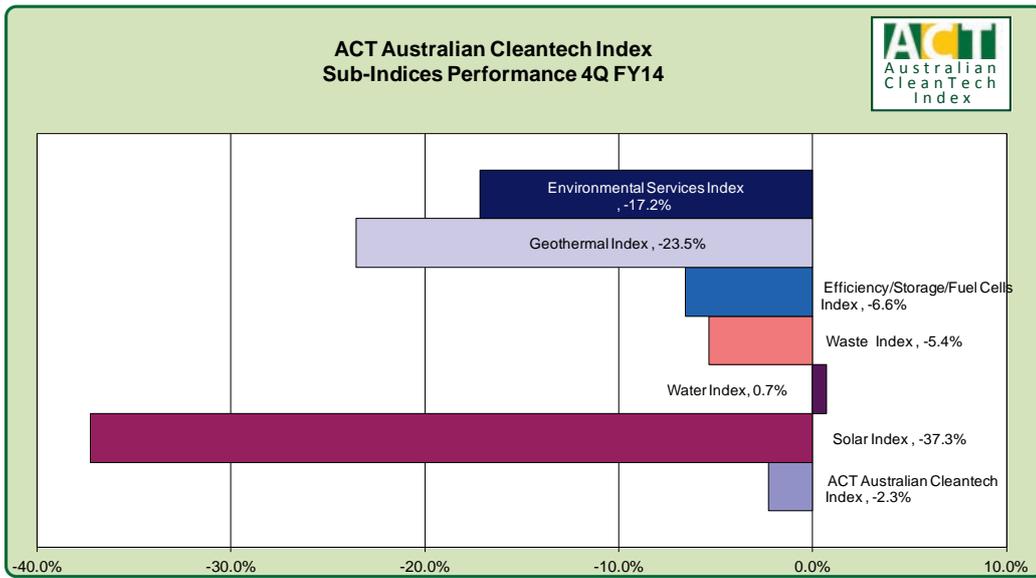
Over the 2013-14 financial year, the best performing indices have been the ACT Environmental Index and the ACT Water Index with the ACT Solar Index and ACT Geothermal Index showing the weakest performance.

**ACT Australian CleanTech Sub-Indices**

	FY10	FY11	FY12	FY13	4Q FY14	2H FY14	FY14
<b>ACT Solar Index</b>	-35.1%	-40.8%	-5.7%	-27.6%	-37.3%	-42.7%	-37.7%
<b>ACT Wind Index*</b>	-40.1%	-24.4%	-	-	-	-	-
<b>ACT Biofuel Index*</b>	12.8%	-24.5%	-44.8%	-44.3%	-	-	-
<b>ACT Water Index</b>	-22.8%	19.8%	1.6%	-14.6%	0.7%	-7.1%	26.3%
<b>ACT Waste Index</b>	-35.0%	-3.3%	-36.9%	-3.4%	-5.4%	-10.7%	18.3%
<b>ACT Efficiency/Storage/ Fuel Cells Index</b>	6.2%	-1.2%	-23.5%	-27.9%	-6.6%	-9.5%	2.9%
<b>ACT Geothermal Index</b>	-57.3%	-18.6%	-44.7%	-48.8%	-23.5%	-16.9%	-33.2%
<b>ACT Environment Index</b>	-52.6%	-25.2%	-29.8%	-44.5%	-17.2%	-13.4%	32.6%

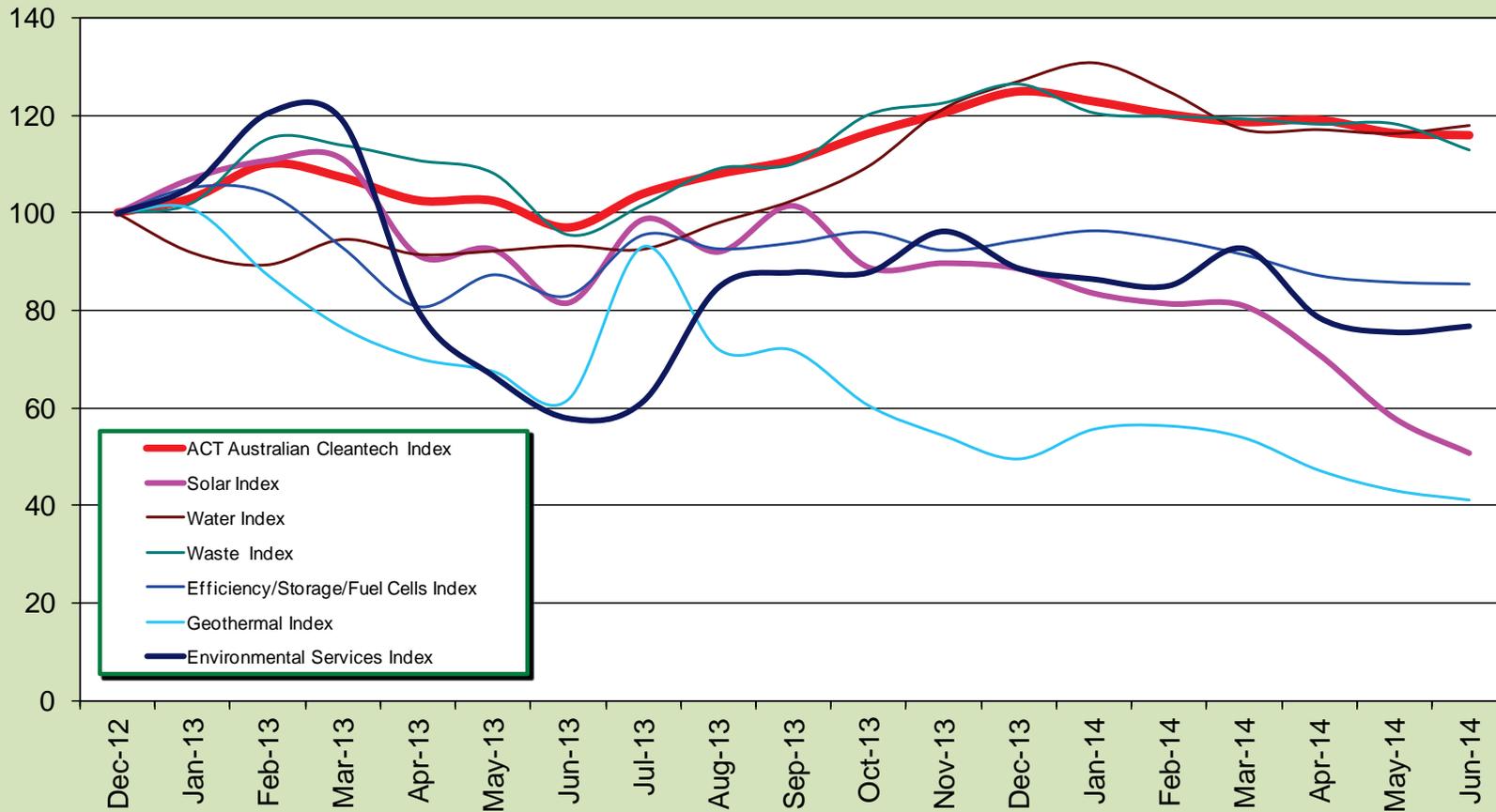
\*: ACT Wind Index and ACT Biofuels Index discontinued due to too few companies

The 4Q14, 2H14 and the FY14 results are shown 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 31 December 2012)



#### 4. Component Companies on 30 June 2014

The largest 20 largest Index constituents by market capitalisation on 30 June 2014 are provided in the table below. These companies will form the constituents of the Australian CleanTech 20 until the index is rebalanced again on 30 September 2014.

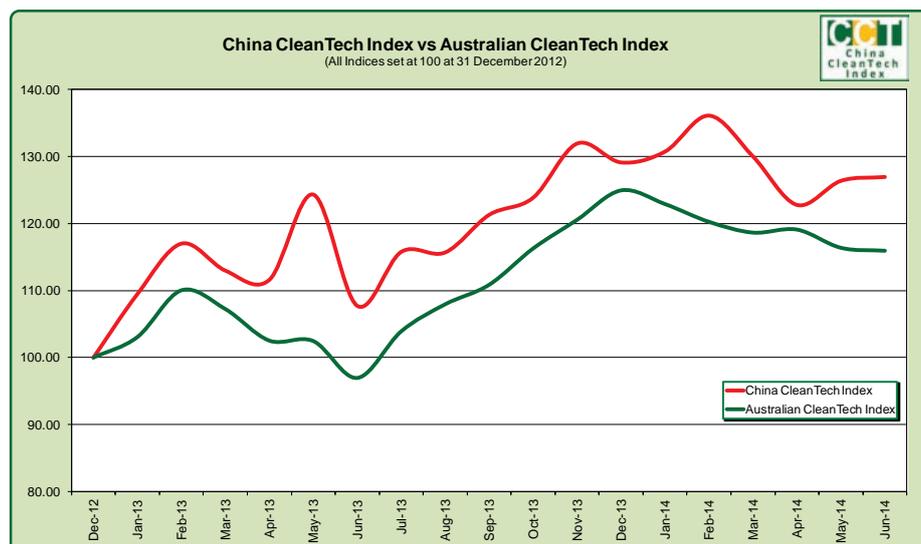
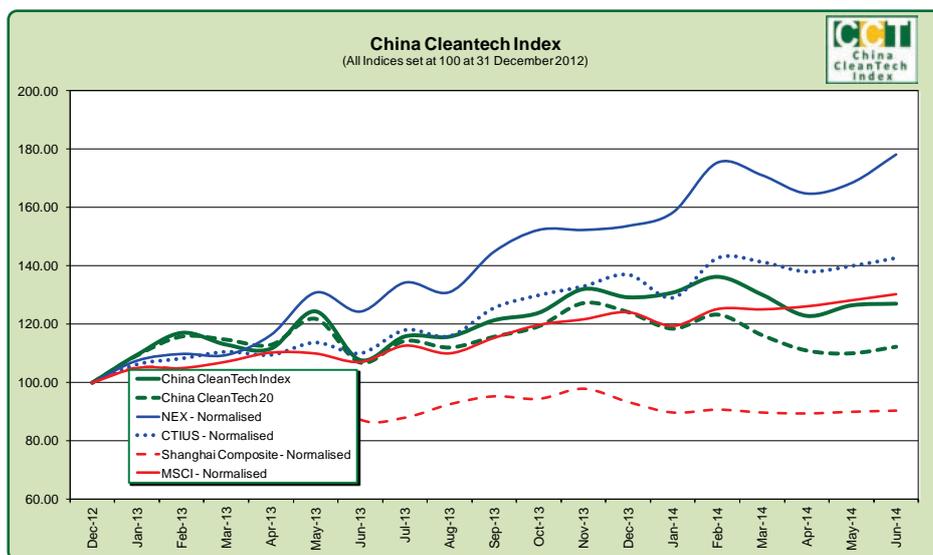
Market Cap Ranking	Company	Ticker
1	Reece Australia Holdings	REH
2	Mighty River Power	MYT
3	Sims Metal Management	SGM
4	Transpacific Industries	TPI
5	Meridian Energy	MEZCA
6	Energy Developments	ENE
7	Tox Free Solutions	TOX
8	Orocobre	ORE
9	Beacon Lighting Corp	BLX
10	Nanosonics	NAN
11	Sylex Systems	SLX
12	Infigen Energy	IFN
13	Pacific Energy	PEA
14	Pro-Pac Packaging	PPG
15	Novarise Renewable Resources	NOE
16	Carnegie Wave Energy	CWE
17	Gale Pacific	GAP
18	Coffey	COF
19	Dyesol	DYE
20	Galaxy Resources	GXY

The change in the Australian CleanTech 20 constituents at this rebalance were the newly listed Beacon Lighting (ASX:BLX) replacing BluGlass (ASX:BLG). Each of the constituents in the Australian CleanTech 20 has a market capitalisation of more than \$54m.

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. China CleanTech Index

Australian CleanTech, through its Beijing-based Chinese operations, publishes the China CleanTech Index. This index tracks all 164 Chinese-based listed cleantech companies wherever they are listed and provides the definitive measure of Chinese cleantech stocks for global markets. The charts below show the performance of the China CleanTech Index against its benchmarks from December 2012 to the end of June 2014 and also show the relative performance of the China CleanTech Index against the ACT Australian CleanTech Index.



Full details of the China CleanTech Index can be downloaded from [www.sinocleantech.com](http://www.sinocleantech.com), where it is also possible to sign up to receive the monthly performance reports.

## 6. Overview of Index Rules

### Criteria for Inclusion

To be included in the 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 Australian CleanTech Index and its 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 constituent 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 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 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 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 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.