



# Australian CleanTech Index

**2Q FY16**

## **Quarterly Performance Report**

**January 2016**

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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 62 companies falling under the coverage of the Index and with a combined market capitalisation, after its rebalance, of over \$17 billion, the ACT Australian CleanTech Index presents a comprehensive 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 ASX200 and the 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, 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. Australia's Top 10 Cleantech Stocks for 2015

The ten cleantech stocks that performed best over 2015 are listed below.

	Company	Ticker	Sector	Overview	12 Month Gain
1	Eden Energy	EDE	Green Building & Transport	Eden Energy Limited is a diversified clean energy company with interests in carbon nanotube/fiber production, EdenCrete technology, OptiBlend, hydrogen fuel technologies, and coal bed/coal mine methane licenses.	700%
2	HRL Holdings	HRL	Geothermal	HRL Holdings Ltd (HRL), formerly Hot Rock Limited, is engaged in geothermal exploration in the Otway Basin in south-west Victoria. It also offers a number of specialized environmental services through OCTIEF Pty Ltd (OCTIEF) and Precise Consulting.	600%
3	Mission NewEnergy	MBT	Biofuels	Mission NewEnergy focuses on Biodiesel Plant in Malaysia and a Downstream Palm Oil joint venture project. The Company owns an interest in a biodiesel refinery in Malaysia, which has a nameplate capacity of approximately 250,000 tons per year.	300%
4	CleanTeQ	CLQ	Environmental Services	Clean TeQ Holdings provides air purification and odor elimination solutions to customers and sale and development of water disinfection products. The Company's products include Continuous Ionic Filtration & Exchange, Evaporation & Crystallization and Encapsulated Bacteria.	260%
5	Aeris Environmental	AEI	Environmental Services	Aeris Environmental is commercialising and globally distributing its AerisGuard range of products; providing heating, ventilation, air conditioning and refrigeration services including hygiene, remediation, energy efficiency and corrosion protection.	223%
6	Orbital Corporation	OEC	Transport	Orbital Corporation invents and builds energy efficient engine technology solutions for its clients in the aerospace, mining, and industrial and consumer sectors.	220%
7	GO Energy Group	GOE	Solar	GO Energy Group (formerly Solco) is engaged in the sale of solar generation systems, and provides electricity and gas through its two business units: CO2markets and GO energy.	200%
8	Leaf Energy	LER	Biofuels	Leaf Resources makes products from plant biomass. The Company's Glycell product reshapes the economics of using large scale biomass resources as a replacement for petroleum derived products.	157%
9	Enerji	ERJ	Energy Efficiency	Enerji Limited is engaged in marketing of energy recovery and clean energy generation solutions. It also designs and develops systems to produce electricity from heat through Accretive Thermal Energy Node (ATEN).	100%
10	Pacific Environment	PEH	Environmental Services	Pacific Environment provides monitoring, predictive management and automated reporting solutions across air quality, groundwater, odour, emissions, contaminated land, acoustic services, landfills, solid waste management and toxicology.	86%

### 3. Australian CleanTech Index Performance 2Q FY16

Australian CleanTech Index again outperformed the ASX200 for both the month and the quarter.

The Australian CleanTech Index rose from 42.94 to 44.57 over the month of December recording a 3.8% gain. This compared to the ASX200 gain of 2.5% and the ASX Small Ordinaries Index gain of 3.6%. The Australian CleanTech 20 also recorded a gain of 3.8%.

Over the second quarter of the 2016 fiscal year, the Australian CleanTech Index recorded a gain of 6.9%, ahead the ASX200's gain of 5.5% but lagging the ASX Small Ordinaries' 10.8% gain.

The six and twelve month figures also remain well ahead of the ASX200 but are now lagging the ASX Small Ordinaries. **Over the last 3 years, the Australian CleanTech Index recorded a gain of 39.6%, 26.2% ahead of the ASX200.**

Percentage Change	FY10	FY11	FY12	FY13	FY14	DEC'15	2Q FY16	6 Mnth	12 Mnth	3Yrs
<b>ACT Australian CleanTech Index</b>	-32.0%	-8.1%	-30.3%	-3.5%	19.6%	<b>3.8%</b>	<b>6.9%</b>	3.2%	4.0%	39.6%
<b>Australian CleanTech 20</b>	-16.3%	-17.6%	-29.2%	-2.0%	19.6%	<b>3.8%</b>	<b>6.3%</b>	1.1%	0.8%	37.3%
<b>S&amp;P/ASX200</b>	11.8%	4.2%	-9.6%	17.3%	12.3%	<b>2.5%</b>	<b>5.5%</b>	-3.1%	-2.1%	13.4%
<b>S&amp;P/ASX Small Ords</b>	10.5%	9.5%	-15.0%	-8.3%	9.6%	<b>3.6%</b>	<b>10.8%</b>	5.0%	6.5%	-5.0%

The market capitalisation after its rebalance of the 62 stocks in the Australian CleanTech Index is A\$16.9 billion.

### Best and Worst Stocks

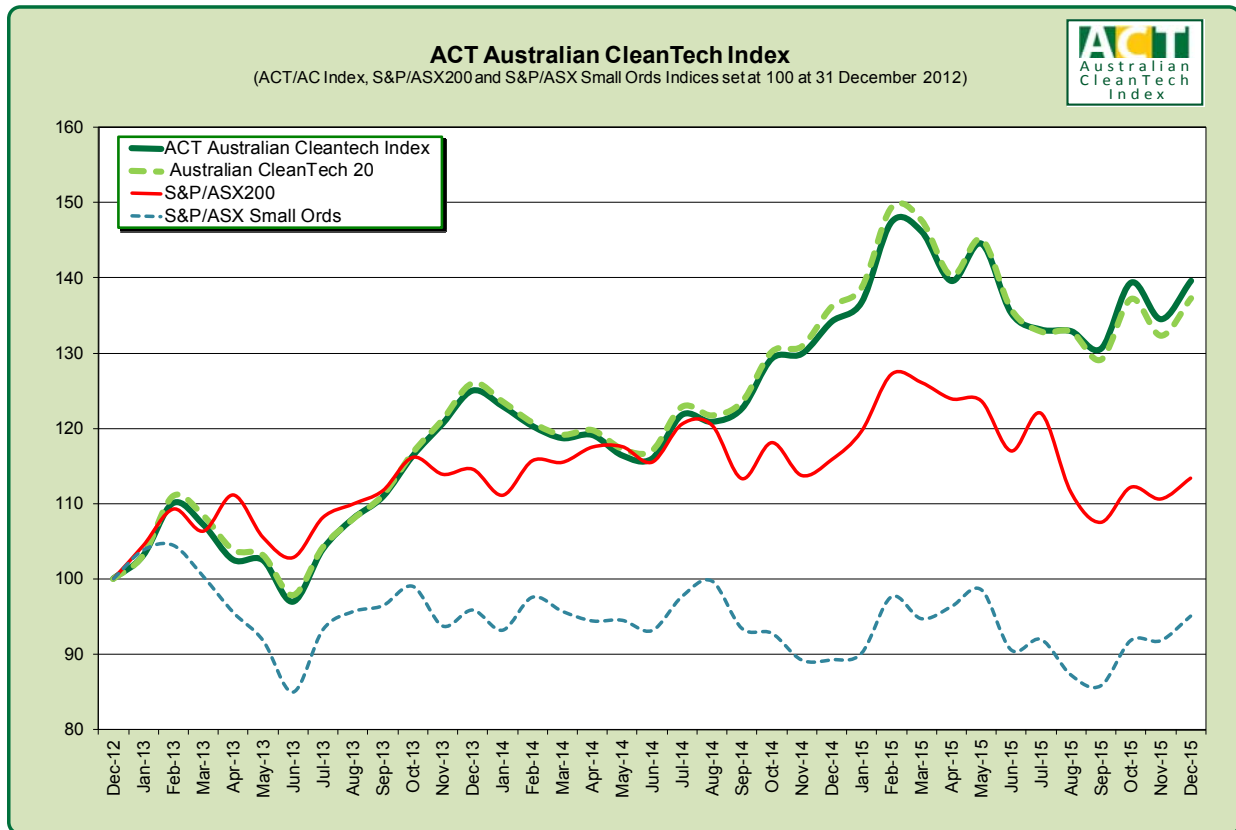
The best and worst performers in terms of share price performance over the month and the quarter are shown in the table below.

The month's performance was driven by 5 companies with gains of more than 15%. The greatest percentage gains were recorded by GO Energy Group (GOE), Intec (INL) and Neometals (NMT). These gains were partially offset by 14 companies recording losses of more than 15% led by Soil Sub Technologies (SOI), Water Resources Group (WRG), AnaeCo (ANQ) and Enerji (ERJ).

The quarter's performance was driven by 9 companies with gains of more than 20%. The greatest gains were recorded by Vmoto (VMT), Eden Energy (EDE) and Australian Renewable Fuels (ARW). These gains were partially offset by 17 companies recording losses of more than 20% led by EcoSave (ECV), Enerji (ERJ) and AnaeCo (ANQ).

December 2016		
Best Performers Share Price Gain > 15%	Worst Performers Share Price Loss > 15%	
GO Energy Group Sims Metal Management Intec Neometals Green Invest	EnviroMission K2 Energy Limited Actinogen Phoslock Water Solutions Water Resources Group AnaeCo EcoSave	Soil Sub Technologies Nanosonics Enerji Orocobre Carbon Conscious Seafarms Group Pacific Environment
2Q FY16		
Best Performers Share Price Gain > 20%	Worst Performers Share Price Loss > 20%	
GO Energy Group Australian Renewable Fuels Leaf Energy Water Resources Group Eden Energy Neometals Vmoto Carbon Conscious Pacific Environment	Quantum Energy K2 Energy Limited Infigen Energy Actinogen Mission NewEnergy Phoslock Water Solutions CleanTeQ AnaeCo Metro Performance Glass	EcoSave SECOS Group Nanosonics Enerji Galaxy Resources Orocobre Greenearth Energy Seafarms Group





### Index Rebalance

The Australian CleanTech Index underwent its quarterly rebalancing at the end of December which took account of recent share issues and other corporate activity. The following two companies were removed from the Index

- **Energy Developments (ASX:ENE)** following its acquisition by DUET and delisting on 23 October 2015.
- **Silex Systems (ASX:SLX)** following the company ceasing its solar business and divesting the Translucent technology assets.

The following company was added to the Index at this rebalance:

- **Genex Power (ASX:GNX)**. Genex Power is a power generation development company that is focussed on innovative clean energy generation solutions which deliver attractive commercial returns for shareholders. The Company’s current focus is on the development of the



330MW Kidston hydro pumped storage power generation project located in Northern Queensland. Following acquisition of the Kidston site in June 2014 and completion of the associated pre-feasibility study, the Kidston project has now transitioned to full feasibility stage. [www.genexpower.com.au](http://www.genexpower.com.au)

GNX will also be added to the new Australian Renewable Energy Index.

### **Watchlist**

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

- **Novarise Renewable Resources International (ASX:NOE)** which is currently suspended from the ASX following the failure of the privatisation proposal from its majority shareholder and concerns raised by its auditor.
- **Coffey (ASX:COF)** which is currently recommending that shareholders accept the acquisition offer from US-based engineering services company, Tetra Tech.

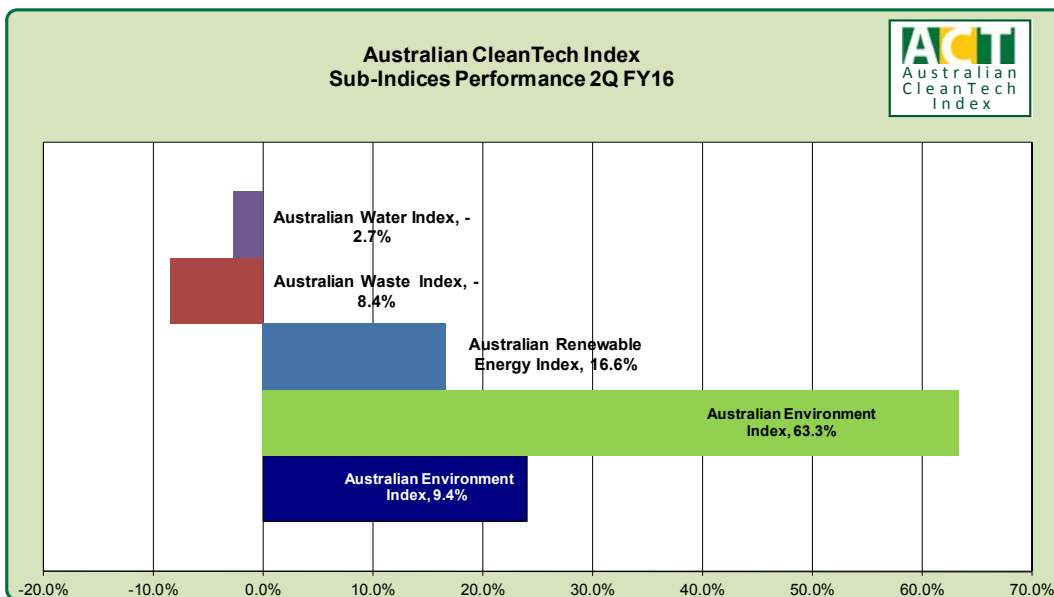
### 4. Component Sub-Indices

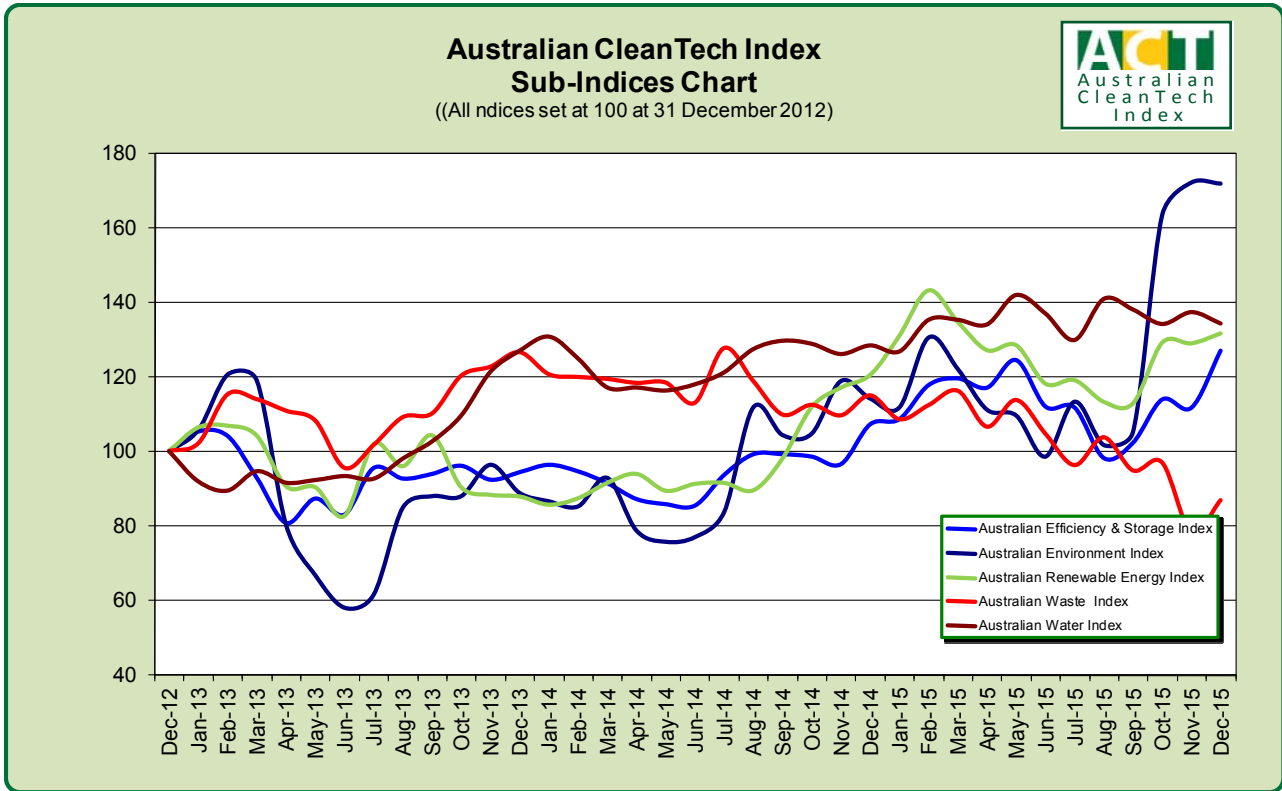
To provide an analysis of the Australian CleanTech Index, a number of sub-indices have been developed. The performance of each of these sub-indices over the last five financial years and during 2Q of FY16 is shown in the table and charts below.

The best performing sectors for the three months to December 2015 were the Australian Environment Index, driven by the proposed acquisition of Coffey, and the Australia Efficiency & Storage Index. The worst performer was again the Australian Waste Index.

**Australian CleanTech Sub-Indices**

	FY11	FY12	FY13	FY14	FY15	2Q FY16
<b>Australian Efficiency &amp; Storage Index</b>	-1.2%	-23.5%	-27.9%	2.9%	31.0%	<b>24.1%</b>
<b>Australian Environment Index</b>	-25.2%	-29.8%	-44.5%	32.6%	28.2%	<b>63.3%</b>
<b>Australian Renewable Energy Index</b>	-32%	-22%	-22%	10%	29.5%	<b>16.6%</b>
<b>Australian Waste Index</b>	-3.3%	-36.9%	-3.4%	18.3%	-7.4%	<b>-8.4%</b>
<b>Australian Water Index</b>	19.8%	1.6%	-14.6%	26.3%	16.1%	<b>-2.7%</b>





## 5. Component Companies on 31 December 2015

The largest 20 largest Index constituents by market capitalisation on 31 December 2015 are provided in the table below. These companies will form the constituents of the Australian CleanTech 20 until the index is rebalanced again on 31 March 2016.

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

There were three new entrants to the Australian CleanTech 20 in this rebalance: Galaxy Resources, Coffey and RedFlow. These replaced the outgoing companies of Energy Developments, Silex Systems and Novarise. Each of the constituents in the Australian CleanTech 20 has a market capitalisation of more than \$77m.

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

## 6. China CleanTech Index

Australian CleanTech, through its Beijing-based Chinese operations, publishes the China CleanTech Index. This index tracks all 165 Chinese-based listed cleantech companies with a combined market capitalisation of US\$324 billion 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 and also show the relative performance of the China CleanTech Index against the 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.

